AN ANALYSIS OF THE PUBLIC REPORTING OF ORGANISATIONAL RESILIENCE FOUND WITHIN THE INTEGRATED REPORTS OF A LARGE STATE-OWNED ENTERPRISE.

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ABSTRACT

This research explored whether there is any evidence of reporting of organisational resilience within the integrated reports of a large state-owned enterprise. The organisation chosen for the research was Eskom. The integrated annual reports of Eskom for 2016, 2017 and 2018 were examined. Direct and indirect evidence of organisational resilience was sought within the organisations integrated reports. The direct reporting of organisational resilience was located by using a PDF word search. A thematic content analysis was used to perform the search for indirect reporting of organisational resilience. Three main themes to represent organisational resilience that were identified beforehand were used to identify the indirect reporting of organisational resilience. Namely, *transformability*, *adaptability* and *persistence.* Sub themes of general and specified resilience were also identified during the research process. The literature review discusses the themes in detail, and also introduces communication and integrated reporting. Evidence of both direct and indirect organisational resilience was identified in all three years studied. Evidence of all the main themes and sub themes was found within the indirect reporting of organisational resilience. The main limitation of the study is that although evidence of reporting of organisational resilience was found, this evidence does not provide any indications of the level of organisational resilience within Eskom. A number of recommendations to Eskom management are made at the end of the research. What is interesting is that integrated reports are not designed to report on organisational resilience. However, the research showed clear evidence of reporting of organisational resilience within all three years researched. Potentially indicating that the integrated annual reports are a useful method of sharing information regarding organisational resilience with stakeholders. An additional benefit is that communication with stakeholders is simultaneously contributing to the enhancement of the organisations resilience.

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1. CHAPTER 1: INTRODUCTION

1.1. Introduction

The theme of the annual meeting of the World Economic Forum – Davos 2019 was "we're in a new economic era: Globalization 4.0" (World Economic Forum, 2019). A new era indicates a new beginning and new opportunities. However, a new era also implies changes and challenges. Some of the topics discussed at Davos were: Governance; the Environment and Natural Resources; the 4th Industrial Revolution; Workforce and Employment, Globalization 4.0; Technological Transformation; Economic Progress; the Digital Economy; Leadership; Cyber security; Climate Change; Sustainable Development; Health; and the Circular Economy (World Economic Forum, 2019). South African organisations are not immune to the effects of this new era and are experiencing both the positive and negative consequences due to these on-going changes, challenges, opportunities and uncertainty. Globally and locally organisations are coming up with diverse and novel ways to deal with this new reality. According to Folke, Carpenter, Elmqvist, Gundersen, et al. (2002, p.4), "in a resilient system, change has the potential to create opportunity for development, novelty and innovation." With this in mind, knowing whether an organisation is resilient will give stakeholders an idea as to whether an organisation is in a position to take advantage of this new era. Thus stakeholders will need to find ways to access information regarding an organisations' resilience.

Resilience is an organisation's ability to change not only during unexpected circumstances but also during expected circumstances (Hollnagel, 2011). Will this new reality and dealing with expected and unexpected changes result in resilience thinking and the concept of organisational resilience becoming more important within organisations? According to Winnard, Adcroft, Lee, and Skipp (2014), with the increase in the unpredictable nature of the world organisations will not be successful in the long term without taking resilience into account. The challenge of operating within the VUCA (volatile, uncertain, complex, and ambiguous) world is making it increasingly necessary for organisations to understand and build resilience (Cheese, 2016; Seville, Brunsdon, Dantas, Le Masurier, Wilkinson, et al., 2006). With the current uncertainty in the world (Bhamra, Dani, and Burnard, 2011; Denyer, 2017; Sawalha, 2015), this may explain why Folke (2016) says there has been an upsurge in resilience research over the past fifteen years. According to Ruiz-Martin, Lopez-Paredes, and Wainer (2018, p.11), “some authors think that the study of resilience is gaining importance due to the speed of changes in the economy, society, and technology.” Due to organisations not keeping up with the increasing world turbulence and a resulting growing resilience gap, more and more large companies are going out of business (Hamel and Valikangas, 2003). To keep up with the speed of these changes is now seen as an essential part of survival of businesses and being resilient is imperative for such survival (Ruiz-Martin, et al., 2018). It is clear from this that the world is facing unprecedented change and thus organisations will have to consider building resilience in order to survive these changes.

The energy industry in South Africa which is currently dominated by Eskom, is also being impacted by this new era. Eskom is a large State Owned Company in South Africa and generates roughly 40% of the electricity used on the African continent and roughly 90% of the electricity used in South Africa (Eskom, 2018). Providing such a large percentage of the current supply of electricity in South Africa makes Eskom a very important part of ensuring growth of the South African economy. Being so reliant on one supplier of electricity also creates a huge risk to South Africa as a country. Eskom’s vision is, “sustainable power for a better future” this is supported by the vision to “provide sustainable electricity solutions to promote economic growth and social prosperity in South Africa and the region” (Eskom, 2018, p.9). The survival of Eskom and its ability to achieve its vision and mission is definitely being threatened as a result of the ‘VUCA’ world. This means that Eskom will require some level of resilience if it plans to fulfil its vision and mission. Issues such as governance shortfalls (Eskom, 2018), changes to the organisations energy mix due to the threat of climate change (Eskom, 2018), continuous changes to leadership (Eskom, 2018), workforce transformation (Eskom, 2018), and many more issues (e.g. national drought, financial collapse, and cyber-attack) (Eskom, 2018) continue to create on-going challenges for Eskom. Considering how reliant the South African public is on Eskom producing electricity, it seems appropriate and important at this time to perform this research. The research aims to obtain information regarding the reporting of organisational resilience within Eskom. This research project was chosen as the concept of resilience and resilience thinking is essential for organisations operating in this new economic era: Globalization 4.0. Nilakant, Walker, van Heugen, Baird, et al., (2014), explain that the concept of resilience offers a reason why certain organisations are more successful when dealing with globalisation, changes in technology and the occurrences of man-made and natural disasters. According to Vos, M., van der Molen, and Mykkanen (2017), communication as a functional area supports a number organisational goals for example economic viability and various functional areas such as human resources. Currently organisational resilience is being highlighted more than any of the other organisational goals (Vos, M., et al., 2017). PWC (2015), express the view that in order to please a growing number of stakeholders with varied perspectives a more comprehensive set of information needs to be reported on.

Increasingly organisations are being asked to provide answers about challenging and complex matters including governance, social and environmental matters (Adams and Simnet, 2011). Folke, Carpenter, Walker, Scheffer, et al., (2010) articulates the fact that resilience thinking is a way to deal with not only the dynamics but also the development of complex social-ecological systems. World-wide corporate reporting is experiencing major changes due to the increasing demands from stakeholders (Rensburg and Botha, 2013). Communication can take many forms. The King IV code on corporate governance says that state-owned enterprises should provide reports to stakeholders so that they can make informed judgements about the entities short, medium and long term outlook (Institute of Directors South Africa, 2016). Eskom reports in its 2018 integrated report that their intention is to ensure that reports distributed to stakeholders are helpful for them to make decisions (Eskom, 2018).

Organisational resilience is a key element of whether an organisation will be able to survive or even thrive in the VUCA world (Alcantra, 2018). According to Vos, M., et al., (2017), communication with all stakeholder groups is essential during turbulent times. This research sought to investigate whether the integrated annual reports (IARs) are potentially a source of sharing information regarding organisational resilience. Reporting is a form of disclosure. Papenfuß, Steinhauer and Friedländer (2017), speak about disclosure for the general public and politicians. This is an example of the diverse stakeholders that make use of the information that organisations report on. The King III report on corporate governance (IOD, 2009 cited in Atkins and Maroun, 2012) explained that the weakness with annual reports was that they did not explain the connections between financial performance, strategy and crucial nonfinancial information.

All organisations require communication to assist with building resilience in response to the responsibility they owe to their employees, partners and various stakeholders (Vos, M., et al., 2017). This is particularly important for organisations that provide critical infrastructure, where a failure could have implications for wider society (Vos, M., et al., 2017). PWC (2015), says that if state-owned entities would like to build trust with stakeholders including citizens they need to provide reliable, timely, and quality reporting. Before explaining the objectives of the research, Eskom as an organisation will be described in more detail.

1.2. Introduction to the organisation – Eskom

The organisation was formed in 1923 (Eskom, 2004), which means that this year Eskom has been in existence for 96 years. Being a state-owned entity, Eskom's purpose is to deliver on its Government mandated strategic intent (Eskom, 2016). This strategic intent includes the mandate to provide a "stable electricity supply in a sustainable and efficient manner, in order to assist in lowering the cost of doing business in South Africa and enabling economic growth" (Eskom, 2018, p.8). Figure 1 below is the legal structure of Eskom. As the figure indicates Eskom consists of a holding company and a number of subsidiaries. This research does not go into any detail regarding the subsidiaries.

Figure 1: Eskom Legal Structure (Eskom, 2018, p.14)

In figure 2 below it can be clearly seen that Eskom is a vertically integrated organisation that is structured into a number of line divisions, service functions and strategic functions.

Figure 2: Eskom Operating Structure (Eskom, 2018, p.15)

As can be seen in figure 3 below, the organisation has operations in all nine provinces of South Africa. With 30 power stations, consisting of 15 coal fired stations, 1 nuclear station, 4 gas/liquid fuel turbine stations, 3 pumped storage schemes, 2 hydroelectric stations, 1 wind energy station and 4 other hydroelectric stations. 381 594 kilometres of power lines (this includes transmission and distribution lines) and 383 284 transformers (Eskom, 2018). The figure below also indicates additions to the power system that are not yet complete and possible future planned additions to the system.

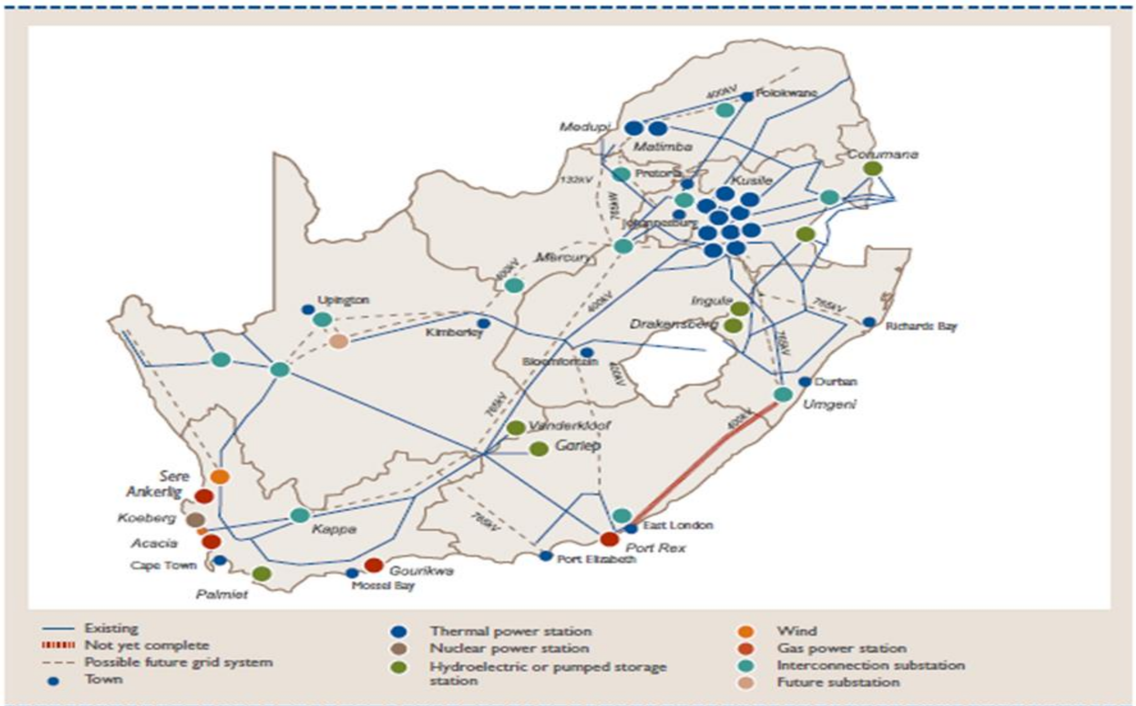


Figure 3: Eskom current and future landscape (Eskom, 2018, p.147)

As at the 31st of March 2018 Eskom had 6 258 605 local customers, 11 international customers, revenue of R180 billion, EBITDA of R45.4 billion, 48 628 staff members and an installed capacity of 48 039 Megawatts (Eskom, 2018). These statistics clearly indicate that Eskom is a large power utility.

With such a large complex organisation such as Eskom structures need to be in place to address disaster management. Internally, Eskom has Tactical Command Centre structures to deal with divisional response, Provincial Joint Command Centres to deal with provincial response and the strategic Emergency Response Command Centre to deal with a national response (Eskom, 2018). Externally, Eskom is working with the National Disaster Management Centre (Eskom, 2018). All of these activities are part of Enterprise resilience within Eskom (Eskom, 2018).

Eskom's main stakeholders according to the 2018 IAR are regulators, investors, media, suppliers, employees, businesses, customers, civil society, government and parliament (Eskom, 2018). Increased reporting on resilience would potentially be beneficial to all of these stakeholders in different ways. Eskom needs to find ways to continuously improve the method and level of communication with all of these stakeholders. One possible method of achieving this is via reporting within the IARs. In 2011 Eskom produced its first integrated report for the year ended 31 March 2011, which provided not only financial but also technical, social, environmental and sustainability information regarding Eskom (Eskom, 2011). Eskom explained in this report that the organisation had aspirations to be the leader in integrated reporting (Eskom, 2011). Before 2011 Eskom had been producing a number of separate reports to share non-financial information such as reporting on various divisions within Eskom and sustainability (Eskom, 2010). The IAR of 2012 reported that Eskom was a participant of the International Integrated Reporting Council's integrated reporting pilot programme (Eskom, 2012). The IAR of 2012 was the first integrated report that was aligned with the principles of the International Integrated Reporting Council and the Integrated Reporting Committee of South Africa (Eskom, 2012).

This was the start of the transformation from producing only financial statements to producing integrated reports. "Although this is our primary report to stakeholders, aimed at providers of financial capital, it provides information of interest to all stakeholders" (Eskom, 2018, p.2). The research aims to see if this information includes reporting on organisational resilience. "In the electricity sector, the adverse impact of natural and man-made hazards on critical infrastructures has resulted in governments, regulators, utilities, and other interested stakeholders seeking to formalise a framework to oversee and enhance resilience" (Ciapessoni, Cirio, Pitto, Panteli, et al., 2019, p.1). Although these authors are referring to power system resilience, enhancing organisational resilience (which will be discussed in-depth in the next chapter) will undoubtedly also be important to Eskom.

1.3. Aim of the Research

The aim of the research was to analyse the reporting of organisational resilience within the Eskom integrated annual reports (IARs). The objectives were stated as:

- To analyse the Eskom IARs for evidence of reporting on aspects of organisational resilience within three theoretical components of resilience namely transformability, adaptability and persistence.
- To assess whether there is more reporting on building general resilience or more reporting on building specified resilience within the IARs. This may provide an insight into the overall resilience of Eskom as observed through the IARs.
- To make recommendations to Eskom management regarding possible improvements to public reporting, as it relates to improved communication or management of resilience.

The benefit of discovering evidence of reporting on aspects of organisational resilience within the identified IARs will encourage different stakeholders and resilience practitioners to consider making use of IARs when seeking information regarding resilience within an organisation. In addition to this Buzzanell (2010) suggests that "the creation and maintenance of communication networks" develops resilience. The information and stakeholders involved in creating and using IARs can be seen as a portion of this communication network. Ideally this research will assist with building this network.

This research focussed strictly on the reporting of organisational resilience within the IARs and did not intend to comment on the effectiveness of any of the reporting that was discovered. Commenting on the effectiveness of the reporting that was found in this research project could potentially provide the basis for future research.

2. CHAPTER 2: LITERATURE REVIEW

2.1. Introduction

The literature review of this research project focusses on resilience, organisational resilience communication and integrated reporting. Resilience literature indicates that if organisations would like not merely to survive, but instead to thrive, building resilience will be essential to this (British Standards Institution (BSI), 2014; Cheese, 2016; Winnard, et al., 2014). The concept of resilience will be explained in more detail in the next section.

2.2. Resilience

According to van der Vegt, Essens, Wahlstrom, and George (2015, p.972), “the term ‘resilience’ comes from the Latin word *resilire* (which means to leap or jump back)”. The seminal work of Holling in 1973, which focussed on living systems (ecological systems), is seen as the basis for resilience research. This research by Holling (1973, p.14) explained resilience as “a measure of the persistence of systems and of their ability to absorb change and disturbance and still maintain the same relationships between populations or state variables”. Holling’s (1973) research focussed on resilience and stability. Since Holling’s (1973) research, the concept of resilience has been developed further across different disciplines namely, ecology, socio-ecology, psychology, disaster management, individuals, organisations, engineering (Bhamra, et al., 2011), organisations, communities, systemic (Seville, et al., 2006), power systems (Ciapessoni, et al., 2019), health systems (Barasa, Mbau, and Gilson 2018; Gover and Duxberry, 2018), supply chains (Scholten and Schilder, 2015) and others.

Figure 4: Connections between various types of resilience and organisational resilience (Ruiz-Martin, et al., 2018, p.12).

Figure 4 above indicates the connections between the various types of resilience and organisational resilience. As can be seen in the figure above, organisational resilience has an influence on societal resilience, territory resilience, socio-ecological system resilience, community resilience, city/urban resilience and economic resilience (indicated by the grey dots). Whereas, infrastructure resilience, business resilience, system resilience, supply chain resilience, cyber resilience, resilience engineering, and individual resilience influence organisational resilience (indicated by the white dots) (Ruiz-Martin, et al., 2018). This interconnectedness indicates how important it is for organisations to report on resilience related concepts. The concept of resilience is similar, but slightly different across all these disciplines. To gain a better understanding of resilience a number of definitions from different disciplines are shared in Table 1 below.

Table 1: Definitions of Resilience.

Author	Perspective	Definition
Folke, 2016	Social-ecological	Resilience is about being able to *persist* during *change* and being able to continue to grow with constantly *changing* environments.
Folke 2006 cited in Folke 2016	Social-ecological	Resilience is the *ability* of citizens, communities, and individuals to live and grow with constantly *changing* environments. Which includes nurturing

		the capacity to *maintain* progress during *change* whether gradual or sudden, known or unknown.
Bahadur, Lovell and Pichon, 2016	Individual	Resilience is the *ability* of humans to understand their rights and increase their welfare in the face of stresses, surprises, and uncertainty.
Hollnagel, 2011, p.1	Engineering	Resilience is the inherent "*ability* of a system to *adjust*" how it operates before, during or after *disruptions* and *changes* in order to *maintain* essential functions during unexpected and expected circumstances.
Vogus and Sutcliffe, 2007, p. 3418	Engineering / Organisational	"Resilience as the *maintenance* of positive *adjustment* under challenging conditions such that the organization emerges from those conditions strengthened and more resourceful."
Walker, Holling, Carpenter, and Kinzig, 2004, p.7	Ecology	"Resilience is the *capacity* of a system to *absorb*" *disruptions* and restructure while experiencing *change* but still *preserve* fundamentally the same character, purpose, structure and feedbacks
Ciapessoni, et al., 2019	Power system	The *ability* to restrict the level, seriousness and length of time the system is degraded after a significant incident.
Ganor 2003 cited in Norris, Stevens, Pfefferbaum, Wyche, et al., 2008	Community	The *ability* of communities and individuals to cope with constant long term pressure; the *ability* to find unfamiliar internal strength and resources in order to successfully handle the situation; the measure of agility and *adaptability*.
Folke, et al., 2010, p.22	Socio-ecological	"The *capacity* of a system to *absorb disturbance* and reorganize while undergoing *change* so as to still *retain* essentially the same function, structure and feedbacks, and therefore identity, that is, the capacity to *change* in order to *maintain* the same identity."

From the definitions in Table 1 above, it is clear that although there are numerous definitions of resilience from within the same and within different fields of study they have a number of similarities. The words in italics within the above mentioned definitions highlight some of the key components involved in achieving resilience that are common among the definitions. Such as *persist, maintain, preserve, adjust, absorb, adaptability, change, ability, capacity, disturbance*, etc. These words describe how a resilient system will respond to a *change, disruption* or *disturbance.* Thus a resilient system in response to a *change* or *disturbance* will have either the *ability* or the *capacity* to either *adjust* or *absorb* or *adapt* in order to *maintain* or *persist* as a system.

According to the British Standards Institution, because an organisation can only be either "more or less resilient", this implies that achieving resilience is a continuous process and is a dynamic concept (BSI, 2014, p.1). In the literature reviewed, various references are made to this continuous process. Lebel, Anderies, Campbell, Folke, et al., (2006) describe managing resilience as involving the processes of either eroding or building resilience. Gover and Duxberry (2018) speak about the factors that either inhibit or enhance organisational resilience. Whereas Denyer (2017, p.5) states that resilience requires "constant effort" or it will be eroded. Ciapessoni, et al. (2019) talk about the process of enhancing power system resilience. Sawalha (2015) explains that there are a number of elements that can improve organisational resilience. "Resilience capacities aim to enhance individual, households, and communities' ability to persist in the face of shocks and stresses, anticipate evolving risks, adapt to changing environments, and transform the underlying vulnerabilities and inequalities that leave them more exposed to shocks and stresses" (Bahadur, et al., 2016, p.3). It is clear that no matter the discipline and the precise words used, resilience is a dynamic concept (BSI, 2014; Ciapessoni, et al., 2019; Folke, 2016; Ruiz-Martin, et al., 2018; Witmer and Mellinger, 2016) that cannot be maintained (persist) without continual building / enhancement / improvement and secondly resilience is always being threatened by degradation / erosion.

Resilience is concerned with dealing with expected and unexpected circumstances (Folke, 2016; Hollnagel, 2011; Johnson, Zanotti, Ma, Johnson, et al., 2017). Thus a crucial characteristic of a resilient system is that it has the ability to change. This ability of a system to change can occur before a disruption (proactive), or in response to a disruption (reactive), or during a disruption (concurrent) (Hollnagel, 2011). Barasa, et al. (2018, p.491) say “resilience is both a function of planning for and preparing for future crisis (planned resilience), and adapting to chronic stresses and acute shocks (adaptive resilience).” Dealing with chronic or everyday challenges can be classified as everyday resilience (Barasa, et al. 2018). Thus it appears that resilience can be built to cope with change before, during or after the event. Taking note that the disruption can be expected and unexpected, it can also be sudden and incremental (Folke, 2006 cited in Folke, 2016).

2.3. Organisational Resilience

One of the research disciplines within the concept resilience that was touched on above, is organisational resilience. As mentioned in the introduction, there has been a substantial increase in the volume of research within the field of organisational resilience. According to literature reviewed, there are numerous components that provide insights into an organisation’s resilience. These include anticipating, preparedness, responding, monitoring, recovering, learning, adapting and adjusting (Bhamra, et al. 2011; Hollnagel, 2011; Weick and Sutcliffe 2015; Wright, Kiparoglou, Williams and Hilton, 2012). These components and related models are linked to the area of organisational resilience that is more concerned with an organisations ability to survive. This research will focus on the aspects of organisational resilience that concentrate not only on an organisation’s survival, but also its ability to evolve and therefore thrive (Folke, 2016; Van der Merwe, Biggs and Preiser, 2018). Organisational resilience has been brought into the everyday operation of companies with the publication of the Guidance on organizational resilience. This guideline was produced by the United Kingdom’s Standards Body. It is identified as British Standard BS6500:2014 –and intends to give guidance and make recommendations to organisations regarding organisational resilience (BSI, 2014).

Just as there are numerous definitions for resilience across different disciplines depending on the area of application, there are also numerous definitions of organisational resilience. Gover and Duxberry (2018, p.477) share a straight forward definition of organisational resilience that simply says, “Organizational resilience refers to an organizations’ capacity to withstand changes over time”. Table 2 below contains a number of slightly more comprehensive definitions of organisational resilience.

Table 2: Definitions of Organisational Resilience.

Author	**Definition**
BSI, 2014, p.1	Organisational resilience is the “*ability* of an organisation to *anticipate*, *prepare* for, and *respond* and *adapt* to” anything from *small* daily occurrences to *serious incidents* and *gradual* or *prolonged changes*.
Ruiz-Martin, et al., 2018	Organisational resilience is a quantifiable mixture of the features, *capabilities*, *abilities* or *capacities* that permit an organisation to *survive expected* and *unexpected disturbances.*
Hamel and Valikangas, 2003	Resilience is the *capacity* to *continuously* rebuild.
Vogus and Sutcliffe, 2007, p.3418	“Resilience as the *maintenance* of positive *adjustment* under *challenging* conditions such that the organization emerges from those conditions strengthened and more resourceful.”
Barasa, et al., 2018	Organisational resilience is accomplished by a mixture of *absorbing* the *challenges* they are confronted with, and *changing* by *transforming* and *adapting* in order to *persis*t on and *thrive* when faced with *challenges*.
Hollnagel, 2010, p.3	“Resilience is defined by the organisation’s *ability* to *adjust* its functioning to *expected* and *unexpected* conditions.”

The similarities between the concepts highlighted in italics within the definitions in Table 1 and Table 2 are clear. The following aspects of organisational resilience in particular are highlighted and include *anticipate, prepare, respond, adapt, transform, adjust, absorb, change, challenging, expected, unexpected, serious, prolonged, small, ability, capacity, maintenance, survive, thrive, maintain, disturbances, continuous and gradual.* It is evident from the definitions in Table 2 that an organisation that would like to *survive* and/or *thrive* while maintaining essentially the same structure requires the *ability* and or *capacity* to *anticipate, prepare, respond* to *expected* and *unexpected, serious* or *prolonged*, *continuous* or *gradual* *challenges* and or *disturbances* by either *persisting / maintaining* and / or *adapting* and / or *transforming*. The definition of organisational resilience that will be used in this research is:

> *"Resilience is about cultivating the capacity to sustain development in the face of expected and surprising change and diverse pathways of development and potential thresholds between them" (Folke, 2016, p.44).*

This definition was chosen due to the unpredictable future "expected and surprising change" (Folke, 2016, p.44) that most organisations are facing due to "new economic era: Globalization 4.0" (World Economic Forum, 2019). The definition suggests that resilience will be required if organisations plan to sustain development in this new era. Resilient organisations are also able to realise their main purpose even during difficult times (Seville, et al., 2006). Resilience is an organisation's ability to change not only during unexpected circumstances but also during expected circumstances (Hollnagel, 2011). "We propose that operational resilience is needed to deliver short-term sustainability, strategic resilience is required for longer-term sustainability (and vice versa), and that flourishing organisations need a proactively managed blend of both qualities across these different time spans" (Winnard, et al., 2014, p.308). To try and explain the concept of resilience Burnard, Bhamra, and Tsinopoulos (2018), explain that prior researchers developed guidelines and frameworks that describe how resilience is built and incorporated into an organisations culture and systems.

"An organization's resilience can be enhanced or degraded as it adapts to changes in its structure, goals and external events" (BSI, 2014, p.11). Winnard, et al., (2014) say that a resilient business proactively manages change. Consequently an organisation needs to focus on enhancing resilience and in this way prevent degradation of resilience.

The British Standards Institute (2014), states that resilience is a strategic objective that assists organisations to thrive. According to Lengnick-Hall, Beck, and Lengnick-Hall (2011), if an organisation has a capacity for resilience, then it will be in a position to develop and choose between various strategic alternatives and take advantage of opportunities as they arise. Organisations require both operational resilience and strategic resilience in order to succeed.

This strategic resilience involves anticipation, diversity, the ability to adjust, and requires the "capacity for reinventing your business model before circumstances force you to" (Hamel and Valikangas, 2003, p.53). Winnard, et al. (2011), suggest that a combination of operational (for short term sustainability) and strategic (for long term sustainability) resilience are needed for an organisation to thrive. Van der Merwe, et al. (2018), explain that resilience can be nurtured at various organisational levels including operational, tactical and strategic. "Organizations that balance exploration and exploitation are able to continuously scan their environment and identify the need and opportunity to change when it presents itself, while maintaining and evolving the key organizational capabilities" (Limnios, Mazzarol, Ghadouani and Schilizzi, 2014, p.109). From the above, it is clear that if an organisation builds its resilience at various organisational levels it will improve its ability to thrive, increase its level of sustainability and its ability to take advantage of opportunities.

New ideas around organisational resilience are continually being proposed. According to Denyer (2017, p.5), two of the main drivers of organisational resilience are one to be "progressive (making good things happen)" and two to be "defensive (stopping bad things happen)". An organisation that is able survive a threat is resilient and an organisation that is able to take advantage of a threat and thrive is resilient and antifragile (Hamel and Valikangas, 2003; Winnard, et al., 2014; Ruiz-Martin, et. al., 2018). "To date, there has been a preoccupation with defensive resilience behaviours and not enough focus on resilience to adapt to opportunity to deal with the big, complex issues that abound in modern business" (Denyer 2017, p.25). This change in behaviour could potentially contribute to an organisation prospering rather than just surviving. Kerr (2015, p.2), explains that resilient organisations are proactive in order to take advantage of opportunities as they arise and thus being resilient should not be seen as a "defensive strategy". Organisational resilience is described as being either active resilience or passive resilience (Pasteur, 2011; Somers, 2009 cited in Sawalha, 2015). Passive resilience is more in response to a disruption, whereas active resilience is about preparing to deal with future challenges. Sawalha (2015) refers to active resilience as pre-emptive. The capacity of an organisation to be resilient needs to be intentionally developed and managed (Lengnick-Hall, et al., 2011). It follows that if an organisation would like to survive and thrive it will require deliberate intervention and the implementation of active and passive resilience. Thus with the increased uncertainty within our environments institutions need to become more flexible, adaptive and open to change to allow for innovation and the ability to adapt to new situations (Berkes et al., 2003 cited in Herrfahrdt-Pähle and Pahl-Wostl, 2012). In summary organisations do not have a choice. Building organisational resilience will be essential to survive unplanned events and essential to be in a position to take advantage of opportunities and thus to thrive.

Some systems are extremely resistant to change and can endure internal and external disturbances. This is why resilience can be viewed as either defensive or as offensive in response to a disruption. Organisations can demonstrate both a resistance (defensive response) to change and a capacity to adapt (offensive response) (Limnios, et al., 2014). This is also due to the fact that an organisation cannot adapt to every small change and at the same time it cannot remain the same and may need to gradually adapt over time (Limnios, et al., 2014). As a result in some circumstances a resilient organisation might not adapt to small changes which means they persist or maintain the affected process/system. In other circumstances, a resilient organisation may decide to adapt its affected process/system in response to a change.

Although resilience contributes to an organisation surviving and thriving, this is not always seen as desirable. Cork (2011), describes the fact that some undesirable parts of a very resilient system may not be desirable. Limnios et al. (2014), explain that at certain times resilience might be more or less desirable, for example stakeholders of a vulnerable or underperforming organisation may prefer if it is not resilient. Carpenter, Walker, Anderies, and Abel (2001), explain that sustainability is always desirable whereas resilience can either be viewed as desirable or undesirable.

Cost might also be a factor in determining whether an organisation decides to pursue increased resilience. This is due to the fact that there is usually be a trade-off between the cost involved and the level of resilience within an organisation (BSI, 2014). Ruiz-Martin, et al. (2018), disagree with the idea that resilience is not always desired and state that organisational resilience is always desired. In reference to management and the role of social memories, Nykvist and von Heland (2014, p.47), say that "on one hand, it is suggested as a desirable source of renewal, innovation, and reorganization. On the other, it is suggested as an undesirable source of traps, rigidity, inertia, and path dependency." The idea that persistence is related to either resistance to change or the ability to adaptively learn seems to indicate that the idea of resilience is not always desirable (Limnios, et al., 2014). Although there are conflicting views on whether resilience is always desirable, it is most likely best for an organisation to carefully consider each situation and make an informed decision as to whether pursuing resilience is desired based on the available facts, costs and objectives.

Different authors describe various organisational indicators/contexts that are influenced by organisational resilience. Barasa, et al. (2018, p.491), refer to “material resources, preparedness and planning, information management, collateral pathways and redundancy, governance processes, leadership practices, organizational culture, human capital, social networks and collaboration”. Limnios, et al. (2014), summarise a number of authors that have explained organisational resilience within different contexts namely, human resources management, psychology, organizational behaviour, environmental change, disaster management, strategic management, and strategic change. Lengnick-Hall, et al. (2011), say that strategic human resource management is key to building an organisations resilience. Bouaziz and Hachicha (2018), clarify this further by saying that specific resilience aspects can be achieved by creating targeted strategic human resource management strategies.

The three components of organisational resilience that will be used for the investigation of the IARs are indications of *transformability*, *adaptability* and *persistence* (Folke, 2016; Folke et al., 2010; Johnson, et al., 2017; Walker, et al., 2004; Van der Merwe, et al., 2018). This is supported by the definition of organisational resilience as described by Barasa, et al. (2018, pp.496-497), “organizational resilience is achieved by a combination of absorbing the challenges faced, and changing by adapting and transforming so as to continue to thrive in the face of challenges.”

2.3.1. Resilience Themes - Transform, adapt, persist

If an organisation has the ability to *transform* and *adapt* when required, its core processes will *persist* and the organisation will be resilient (Folke, 2016; Folke, et al., 2010; Walker, et al. 2004). These three aspects of resilience, the ability to *transform*, *adapt* and *persist* are the aspects that were used as the main themes for the research and will be further expanded upon in this chapter. Folke, et al. (2010), explain that resilience thinking includes the dynamic relationship of *transformability*, *adaptability* and *persistence*.

"They argue that resilience results from the combination of absorptive capacity leading to persistence, adaptive capacity leading to incremental adjustments/changes and adaptation, and transformative capacity leading to transformational responses" (Folke, 2016, p.50). In other words an organisation will be resilient if it can absorb change (*persistence*), it can adjust to change (*adaptation*), and it can transform when required *(transformation*). Herrfahrdt-Pähle and Pahl-Wostl (2012), suggest that an organisation with a high level of organisational continuity is *persistent*, an *adaptable* organisation is interspersed with continuity and change and an organisation undergoing *transformation* is an organisation experiencing complete change. In Table 3 below the difference between transformation, adaptation and persistence is described in relation to 'change' and 'continuity'. The information in Table 3 illustrates the fact that when *transformation* occurs change will be greater than continuity. Whereas, when a system demonstrates *persistence* continuity will be greater than change. *Adaptation* involves more of a combination between change and continuity.

Table 3: Change and Continuity in relation to Resilience Adapted from Herrfahrdt-Pähle and Pahl-Wostl, 2012.

Transformation	Change	>	Continuity
Adaptation	Change	~	Continuity
Persistence	Continuity	<	Change

The definitions in Table 4 below obtained from The Little Oxford Dictionary (1982), describe the aspects of organisational resilience mentioned above in terms of the English language. These words found in the dictionary seem familiar as they are similar to the words that were highlighted in italics in Table 2 above.

Table 4: Definition of *Transform*, *Adapt* and *Persist* (Adapted from The Little Oxford Dictionary, 1982).

Transform	Change considerably
Adapt	Adjust
Persist	Continue to exist

In Figure 5 below Van der Merwe, et al. (2018), distinguish between *transformability*, *adaptability* and *persistence* in relation to different organisational levels and explain that leadership promotes resilience at different organisational levels via:

- planning for the future at a strategic level (*transformability*)
- adapting to disruption at a tactical level (*adaptability*)
- control of day to day operations at an operational level (*persistence*)

Figure 5: "Resilience roles and responsibilities at different organizational levels." (adapted from: Van der Merwe, et al., 2018).

Cheese (2016), explains that if an organisation aims to achieve resilience they will need to focus on culture and behaviours. The author makes it clear that these issues will need to be central the organisations business model and strategy.

"*Transformability* is the capacity of a system to become a different system, to create a new way of making a living. It's about changing the system when the existing system is no longer working for us and it's not worth adapting" (Cork, 2011, p.5). Walker, et al. (2004), define *transformability* as the ability to build essentially a new system when the current economic, political, ecological, or social circumstances become untenable. Johnson, et al. (2017, p.11), describe *transformation* as a "shift into a new system altogether". When a system goes through a *transformation*, a completely new system evolves (Johnson, et al., 2017). Walker and Salt (2012), explain that in order for *transformation* to happen three properties are needed. Firstly, to accept the fact that a change is required. Secondly, various options need to be considered. Thirdly, the capacity to change must exist. According to Folke, et al., (2010), *transformation* encompasses innovation and novelty, which explains why it is about "about shifting development into new pathways and even creating novel ones" (Folke, 2016, p.48). Bahadur, et al. (2016), describe transformative capacity as the ability to try out new methods and make use of innovation which results in fundamental change.

Transformation can be viewed as either deliberate transformation (active transformation) or forced transformation (imposed transformation). Deliberate transformation is usually initiated from within the organisation, i.e. creating a completely new way of operating (Walker et al, 2004), whereas forced transformation originates from an external factor, i.e. response to a change in legislation (Folke, et al, 2010). Folke, et al. (2010, p.5), explain deliberate transformation as a deliberate process that is "initiated by the people involved", and forced transformation is a forced process that is initiated "by changing environmental or socioeconomic conditions". A system that has an above average capacity for transformational change might deliberately introduce transformational changes in order to have an influence over the outcome of a possible forced transformation (Folke, et al, 2010). Thus proactive organisations look for and anticipate opportunities to make fundamental changes before the environment they are operating in forces them to. This can lead to thriving instead of just survival.

According to Dervitsiotis (2003), the rate of change that is occurring within a system determines what response is required by the system. Initially it may only need to adjust, then adapt and lastly to transform. The ultimate form of transformation could be classified as evolution occurring over a long time frame whereas transformation over a very short time frame could be classified as adaptation (Anderies, Folke, Walker, and Ostrom, 2013). Thus these authors believe that transformability and adaptability can be categorised as different levels of system change (Anderies, et al., 2013). Transformation becomes essential when circumstances change such as technological advancements, legislative changes and environmental changes, this is when a different tactic is needed to ensure survival (Dervitsiotis, 2003).

When a system *adapts* in response to a change, it maintains its functionality and core features. (Johnson, et al. 2017). "*Adaptability* is about sticking with the system you have" (Cork, 2011, p.5). "The *adaptability* concept in resilience thinking captures the capacity of people in a social-ecological system to learn, combine experience and knowledge, innovate, and adjust responses and institutions to changing external drivers and internal processes" (Folke 2016, p.48). Adaptive capacity is generally related to medium to long term resilience objectives whereas transformative capacity is generally related to long term resilience objectives (Bahadur, et al., 2016).

A highly resilient organisation is able to *adapt* by changing its functions, processes and structure in response to a disturbance, high levels of resilience will result and the system will be able to *persist* (Limnios, et al., 2014). "*Adaptive* capacity is the capacity to make intentional adjustments and incremental changes in anticipation of or in response to change, in ways that create more flexibility in the future" (Bahadur, et al., 2016, p.14). This flexibility puts an organisation in a position to cope with continued uncertainty.

Transformability and *adaptability* can be responses to both internal and external factors (Johnson, et al. 2017). *Transformability* and *adaptability* "include but are not limited to the adoption of new management practices or technologies, formation of new governance systems or institutions, shifts in cultural values, and relocation" (Johnson, et al., 2017, p.11). *Transformation* and *adaptation* are often described as the way to realise various resilience objectives (Johnson, et al, 2017). To cope with external and/or internal stressors some form of *transformation* or *adaptation* needs to occur to change a systems functions, processes and structure (Johnson et al, 2017). Therefore *adaptation* and *transformation* are both essential parts of creating a resilient organisation. Lengnick-Hall, et al. (2011), suggest that *transformation* comes more from within an organisation driven by internal creative and dynamic processes whereas *adaptation* usually comes from the requirement to adjust to an outside perspective. Resilience has been explained as involving transformation and adaptation of systems that result in new organisational cultures, policies and processes that allow an organisation to continue to operate when confronted with challenges. (Barasa, et al., 2018).

The final component of resilience to be discussed is *persistence*. According to Folke (2016), *adaptability* is the key to *persistence*. Bhamra, et al. (2011), suggest that resilience is a measure of the *persistence* within a system and its capacity to cope with various disturbances while still maintaining the relationships that exist within the system. *Persistence* refers to "how long a variable lasts before it is changed to a new value ... " (Pimm, 1991 cited in Batabyal, 2000, p.5). Whereas Gunderson, et al., 2006 cited in Herrfahrdt-Pähle and Pahl-Wostl (2012), explain *persistence* as a system that only makes an incremental adjustment to cope with a change.

It is suggested by Carpenter et al. (2001), that to measure long term *persistence* that resistance must be kept in mind as it is a complementary characteristic. This makes sense as it implies that a system is able to absorb or resist change which is why it is able to *persist*. Limnios, et al. (2014), allude to the idea that because resilience is not always desired, *persistence* can be viewed as an ability to resist change or an ability to adaptively learn. Bahadur, et al. (2016), describes *persistence* in terms of an organisations absorptive capacity. This expanded by explaining that in order to *persist* an organisation needs the ability to anticipate and decrease the effect of a disturbance.

Table 5 below describes the learning that occurs within an organisation within the three components of organisational resilience (Herrfahrdt-Pähle and Pahl-Wostl, 2012).

Table 5: Different types of learning. (Adapted from Pahl-Wostl, 2009 cited in Herrfahrdt-Pähle and Pahl-Wostl, 2012).

Transformation	Triple loop learning	Process of learning that involves the interrogation and change of "prevalent mental models, values, and norms." p.11

Adaptation	Double loop learning	Process of learning that evaluates expectations without interrogating the fundamental “values and norms.” p.10
Persistence	Single loop learning	Process of learning within the existing system, that is within ”the current framework of norms and values.” p.9

As is explained in Table 5 there are the least amount of changes to the ‘values and norms’ within organisational learning when persistence is maintained and the most amount of changes to ‘values and norms’ during learning whilst transformation is occurring. This makes sense as transformation is related to considerable change and thus core features are fundamentally changed, therefore the learning will be beyond the previous ‘values and norms’ that existed.

Organisational resilience can be classified into either general or specified resilience. The following section will discuss these classifications in more detail.

2.3.2. General and specified resilience

When considering organisational resilience, it is essential to distinguish and understand the difference between general resilience and specified resilience. According to Cork (2011, p.5), “there is a trade-off between specified and general resilience.” Organisations have to be careful not to use too many resources developing one type of resilience as they will reduce the organisation’s overall resilience (Folke, 2016). But it is also important to note that specified and general resilience are also complementary (Walker and Salt, 2012).

Specified resilience relates to the resilience of a particular portion of a system to a specific disturbance (Cork, 2011; Folke, et al., 2010; Walker and Salt, 2012). Johnson, et al. (2017, p.9), explains specified resilience as “the capacity of a system to maintain a specific function in relation to a set of disturbances.” Cork (2011), describes specified resilience as being prepared for identified or expected future events. What is key is whether a disruption would push the system past its 'tipping point' and change the way it operates (Walker and Salt, 2012). Specified resilience is very specific and would be evidenced by "what to what" (Carpenter, et al, 2001, p.767) and "for whom" (Lebel, et al., 2006, p.15). There are similarities between the concepts of specified resilience and robustness as both have defined system boundaries (Anderies, et al, 2013). Evidence of an organisation attempting to build specified resilience might be shown for example in an investment in specific technical infrastructure that is built to deal with a specific type of incident (Van der Merwe, et al., 2018).

General resilience refers to the resilience of the whole system, or any portion of the system, to all types of change including unique changes (Folke, et al., 2010). This broader form of resilience builds capacity within an organisation to cope with uncertainty (Folke, 2016). "General resilience is the capacity of a system that allows it to absorb disturbances of all kinds, including novel, unforeseen ones, so that all parts of the system keep functioning as they were" (Cork , 2011, p.5). Although the strategies for implementing general resilience are not specific, it is essential to build practices and policies to address certain characteristics such as governance and social interactions, etc. (Carpenter, Arrow, Barrett, Biggs, et al., 2012). Johnson, et al. (2017, p.9), state that "a system's ability to adapt or transform in response to social-ecological change and uncertainty is an important indicator of general resilience."

General resilience is associated with adaptability, the characteristics of both overlap (Walker and Salt, 2012). Three important purposes of general resilience include; having various available options, being in a position to rapidly respond and ensuring that required resources are available (Walker and Salt, 2012). It is more difficult to increase resilience to cope with an unknown disturbance as compared with a known disturbance, making it more difficult to assess the level of general resilience (Walker and Salt, 2012). Due to the scope of general resilience it is not always possible to design specific building blocks to create it. Which is why various methods of enhancing general resilience need to be identified (Carpenter, et al., 2012).

It is clear from the literature above that an organisation wishing to pursue resilience needs to take a number of factors into account. An essential part of building resilience in any organisation dealing with continuous change is communication, both with internal and external stakeholders. Thus in the next section communication, and communication and resilience will be expanded upon.

2.3.3. Communication and Resilience

Communication is an essential function within all organisations. Norris, et al. (2008, p.140), explain communication as the “creation of common meanings and understandings and the provision of opportunities for members to articulate needs, views, and attitudes.” With the VUCA world that organisations are facing providing a common meaning seems like an essential ingredient for an organisation wishing to be successful. Vos, M., et al. (2017), says that communication can play a significant role in building organisational resilience during turbulent times. Communication with stakeholders can take many forms and provide various types of information. If an organisation is pursuing resilience it makes sense that they will attempt to pursue a high level of and quality of communication. Seville (2008, p.8), describes communication and relationships as an indicator of adaptive capacity which result in the “proactive fostering of respectful relationships with stakeholders to create effective communications pathways which enable the organization to operate successfully during business-as-usual and crisis situations.”

According to Kay and Goldspink (2012), open communication supports resilience. This includes communication to external and internal stakeholders. (this includes all levels within an organisation). According to Vos, M., et al. (2017, p.34), the following communication processes support organisational resilience:

- “Monitoring stakeholder views and interactions
- Communication with employees and partners
- Inter-organisational and client communication”

IARs can be viewed as part of this process to support organisational resilience. IARs are a method to communicate with internal and external stakeholders. McManus, Seville, Vargo and Brunsdon (2008), indicate that badly managed relationships and communication with stakeholders will contribute to reducing the level of organisational resilience. Gover and Duxberry (2018), explain that during change organisational resilience can be enhanced by ensuring timely appropriate communication with staff.

As mentioned in the literature review, resilience is dynamic which implies that in order for communication to strengthen the building of resilience it needs to be a continuous process and not just once off communication. “Communication has been approached as a bridging activity, enabling the net-worked adaptive capacities needed for resilience“ (Norris, et al., 2008 cited in Vos, M., et al., 2017, p.33).

“Strategies for communicating with policy makers are needed to support the shift to resilience management by legislative, regulatory and other means” (Linkov, Bridges, Creutzig, Decker, et al., 2014, p407). From what these authors say, it is clear that communication is essential in order to maintain resilience.

Busco, Frigo, Quattrone, and Riccaboni (2013, p.41), propose that “management accountants can lead the process of communication and reporting by designing innovative documents that can capture the interest and attention of diverse stakeholders.” IARs can perhaps be used to share this idea of more innovative documents. Due to the importance of communication to stakeholders that was described above and the ability of integrated reporting to provide a broad-based form of organisational communication, the decision was made to use IARs for this research. With the changes taking place in corporate reporting, integrated reporting offers the chance to provide improved, clearer communication that is more suited to the requirements of stakeholders (Simnett, and Huggins, 2015). According to The International Federation of Accountants (IFAC) (2017, p.3), “it is in the public interest for organizations to report more broad-based information that is important to, and useful for, stakeholders.” As already mentioned above an example of this broad based information is the IARs. More information on the IARs will be provided in the next section.

2.4. Integrated Reporting

With the current challenges facing Eskom (financial and non-financial) it is most probably now more than ever important for Eskom to communicate with stakeholders to ensure they understand what is happening within the organisation. As this communication needs to include more than just traditional (financial) information, integrated reports might provide a perfect platform for this. This potential to provide very useful and relevant non-financial data about Eskom as an organisation is what inspired the use of the publically available integrated reports of Eskom to perform this research.

It is suggested by the Integrated Reporting Committee (IRC) of South Africa (2011) that an explanation of the risks and opportunities that could be material to an organisations planned or current activities be included in the integrated report. This is in line with a resilient organisation aiming to address risks and take advantage of opportunities. This section of the literature review will describe the history of integrated reporting, what it integrated reporting involves and the benefits of this form of reporting / communication.

What is the difference between traditional reporting and integrated reporting and why was integrated reporting introduced as a form of reporting? “An integrated report is a concise communication about how an organization’s strategy, governance, performance and prospects, in the context of its external environment, lead to the creation of value over the short, medium and long term” (International Integrated Reporting Council (IIRC), 2013, p.7). Novozymes, a global biotechnology company headquartered in Denmark produced the first integrated report in 2002 (de Villiers, Venter and Hsiao, 2017). After the global financial crisis in 2008, many blamed the limitations of traditional reporting and accounting for the crisis. This resulted in requests for an increase in the integrated disclosure of financial and non-financial reporting (de Villiers, Venter and Hsiao, 2017).

“The purpose of looking beyond the financial reporting boundary is to identify risks, opportunities and outcomes that materially affect the organization’s ability to create value”

(IIRC, 2013, p.20). In Cheese (2016), the author explains that an adaptive more resilient organisations' response to risk is also the approach that will create sustainability and value. Understanding whether an organisation has the ability to be resilient and therefore create value and be sustainable is essential information for most organisations stakeholders.

Integrated reports are intended to satisfy the need of shareholders to obtain more non-financial information rather than only financial information (Frias-Aceituno, Rodríguez-Ariza and Garcia-Sánchez, 2014). This includes providing qualitative information (de Villiers, et al., 2017). "An integrated report benefits all stakeholders interested in an organization's ability to create value over time" (IIRC, 2013, p.4). As such, even though integrated reports are not designed specifically to report on organisational resilience, an "integrated report enhances transparency and accountability, which are essential in building trust and resilience" (IIRC, 2013, p.18). Integrated reports aim to provide a strategic picture of how an organisation creates value in the short, medium and long term (Adams and Simnett, 2011). This is in line with the view from the British Standards Institution (2014) that expresses resilience as a strategic objective of organisations. According to Wadee, (2011 cited in Hoque, 2017, p.245), "integrated reporting is effective in the process of communication, which can help investors and other stakeholders to understand not only an organization's past and current performance, but also its future resilience". The International Integrated Reporting Framework guidelines inform the content of the IARs, for example how a company deals with material changes, risks, and opportunities (IIRC, 2013); this content can also be viewed as responses to expected and unexpected changes facing an organisation and thus closely relate to the need for organisational resilience.

In response to these requests the International Integrated Reporting Committee was formed in 2010, which was later renamed the International Integrated Reporting Council (IIRC) (Morros, 2016). The Integrated Reporting framework was published by the IIRC in 2013 (de Villiers, et al., 2017). The aim of the initiative was to get internal and external parties to consider the long term impact of a wider group of capitals rather than just the impact of financial capital. The six capitals that are included in the framework are financial, manufactured, intellectual, human, social and relationship, and natural capital (IIRC, 2013). Specifically the report makes evident all the pertinent capitals on which the past, present and future performance of an organisation it includes how the organisation makes use of the capitals and what its effect is on the capitals. Obtaining this information is crucial to the effective division of limited resources (International Integrated Reporting Committee (IIRC), 2011). This information is critical to the effective allocation of scarce resources. “It will provide a meaningful presentation of the organization’s prospects for long term resilience and success, and facilitate the informational needs of, and assessments by, investors and other stakeholders” (IIRC, 2011, p.10).

Integrated reporting can be viewed as a reflection of ‘integrated thinking’. “The effective communication of this process can help investors, and other stakeholders, to understand not only an organization’s past and current performance, but also its future resilience” (IIRC, 2011, p.6). Integrated reporting is attempting to provide a method for investors to measure the future prospects of an organisation and thereby overcome the shortfalls of traditional reporting (de Villiers, et al., 2017).

The Integrated Reporting Committee of South Africa describes as an important expected benefit of integrated reporting the opportunity that an organisation’s leaders are afforded through integrated reporting to exhibit to a wide range of stakeholders their understanding of not only the business but also the challenges facing it (IRC, 2011). One of the benefits of integrated reporting is that leadership can share with a number of stakeholders that it grasps the organisation and the challenges facing it (IRC, 2011). It is clear that integrated reporting aims to improve stakeholder relationships, as relationships are likely to improve with an improved understanding of the organisation.

The International Integrated Reporting Council framework is a guideline that is based on a set of seven principles. Being guidelines allows for flexibility in reporting due to the differences that exist between different organisations (IIRC, 2013). Although, this also results in the framework being interpreted differently by different organisations. Making comparisons between organisations challenging (de Villiers, et al., 2017). Different organisations can interpret the framework in different ways which may be more suitable to their industry or business model. The seven principles are:

- “Strategic focus and future orientation
- Connectivity of information
- Stakeholder relationships
- Materiality
- Conciseness
- Reliability and completeness
- Consistency and comparability” (IIRC, 2013, p.5).

“It is now widely accepted that traditional financial reporting no longer meets the needs of businesses seeking to develop and maintain resilient and responsible operations” (The Association of Certified Chartered Accountants, 2017, p.6). This clearly indicates that there is an opportunity for integrated reporting to fill this gap to communicate with stakeholders regarding an organisations resilience.

In South Africa, integrated reporting is an important part of the reporting of local organisations, both in the private and public sector. Integrated reporting was introduced in King III, but its understanding has developed considerably since then. Integrated reporting forms part of the foundation of King IV. King IV describes the move from reporting in silos to integrated reporting (Institute of Directors South Africa, 2016). King IV says that reports are a powerful method for state owned entities to communicate with their stakeholders. Adding that if the reports provide information about the relationships and resources that the organisation relies on, its activities and products in an integrated way then they will deliver an effective method of sharing information regarding the organisations performance (Institute of Directors South Africa, 2016).

It is evident from what has been explained above that communication is an essential part of resilience and integrated reporting is potentially a very useful form of communication with stakeholders regarding resilience.

3. CHAPTER 3: RESEARCH METHODOLOGY

3.1. Introduction

This chapter describes the methodology used to perform the research. Reporting of organisational resilience within the Eskom IARs was carried out using a mixed methods approach. Vos, A., Strydom, Fouche and Delport (2017), describes mixed methods research as being 'practical', allowing all methods possible to be used in order to address a research problem. The ontological assumption used for the research was critical realism. This ontology says that reality exists but is not perfectly understood due to the flaws of human intellect (Guba and Lincoln, 1994). This research made use of a post-positivist paradigm. Post-positivism assumes "that it is possible to approximate (but never fully know) reality" (Guba and Lincoln, 1994, p.111). The trustworthiness of qualitative research is often queried, thus during the research process the researcher considered the following trustworthiness criteria namely credibility, transferability, dependability, and confirmability (Shenton, 2004).

3.2. Research Aims

The aim of the research was to analyse the reporting of organisational resilience within the Eskom integrated annual reports (IARs). The objectives were stated as:

- To analyse the Eskom IARs for evidence of reporting on aspects of organisational resilience within three theoretical components of resilience namely transformability, adaptability and persistence.
- To assess whether there is more reporting on building general resilience or more reporting on building specified resilience within the IARs. This may provide an insight into the overall resilience of Eskom as observed through the IARs.
- To make recommendations to Eskom management regarding possible improvements to public reporting, as it relates to improved communication or management of resilience.

This research was conducted by inspecting the integrated annual reports (IARs) of Eskom. The focus of the research was on organisational resilience and did not go into any detail regarding power system resilience. “South Africa’s electricity sector has long been the site of intense political, economic and social struggle” (Baker and Phillips, 2018, p.7). This research looked for evidence of whether resilience is integrated into Eskom’s culture and systems and whether this could be evidenced within the IARs of Eskom. More in depth detail on the research process followed is described in the next section.

3.3. Population and Sample

The population for the research consisted of the Eskom Integrated Annual Reports. Eskom is a State Owned Company and these official documents are available in the public domain. Thus the reports are easily accessible and are a secondary data source. The reports were located on the Eskom website. The 3 most recent reports namely the Integrated Annual Reports for the financial years 2016, 2017 and 2018 were chosen as the sample. This is considered non-probability sampling which is subjective and therefore has limitations (Etikan, Abubakar, Rukayya and Alkassim, 2017). The supplementary information section of the IARs was not included in the research. The 2019 IAR was released while the research was being carried out and was therefore not considered for the research.

3.4. Method

Indications of direct and indirect reporting of organisational were sought within each IAR. The research focussed on the reporting of aspects of resilience that contribute to an organisation not only surviving, but thriving. Evidence of these aspects of resilience was searched for within the IARs. IARs are a platform for organisations to communicate qualitative and quantitative information regarding the past, present and future with stakeholders (IIRC, 2013). The qualitative information within the IAR’s was scrutinised for evidence of reporting on organisational resilience. According to the Australian Government Good Business Guide a resilient organisation's communication with its stakeholders is regular and reliable (Commonwealth of Australia, 2016). The seminal work of Buzzanell explains that communication is key to developing resilience (Buzzanell, 2010). Gover and Duxberry (2018), explain that during organisational change, communication processes provide a vital link to ensuring organisational resilience.

The initial examination for evidence of direct reporting of organisational resilience was carried out using a simple PDF word search for the word 'resilience' within the IARs. Wherever the word resilience was found further content analysis was performed to investigate what information regarding organisational resilience was being reported on. The search for indirect reporting was carried out according to the methodology explained below. As the IARs are not specifically designed to report on resilience this search required more effort than the search for reporting on direct organisational resilience.

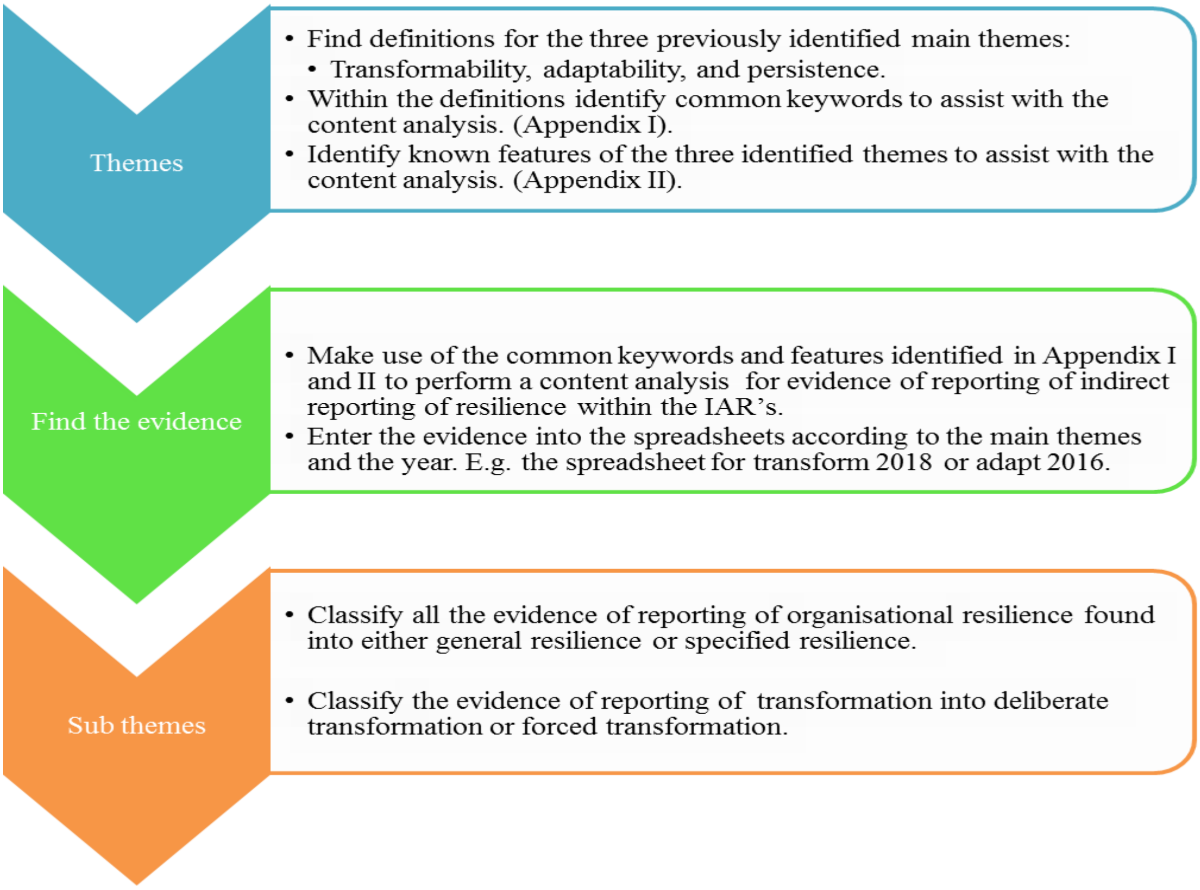


Figure 6: Method used to search for evidence of reporting of indirect resilience.

Figure 6 above explains the method used to search for indirect reporting of resilience using a number of main themes and sub themes. The method will be explained in more detail below. Theoretical thematic analysis also referred to as top down analysis was used to identify data relevant to indirect organisational resilience. According to Braun and Clarke (2006, p.13), "a 'theoretical' thematic analysis would tend to be driven by the researcher's theoretical or analytic interest in the area, and is thus more explicitly analyst-driven." Thematic analysis that is done well does not merely condense the data but interprets and makes sense of the data (Maguire and Delahunt, 2017). The method used to identify reporting of indirect reporting of resilience was performed using content analysis to search for information related to the following organisational resilience themes namely *transformability, adaptability* and *persistence* (Folke, 2016; Van der Merwe, et al., 2018). To assist with identifying the indirect reporting of the main themes within the IARs, a number of definitions for transformability, adaptability and persistence were identified. Common keywords found within the definitions of these main themes were extracted and can be found in Appendix I. A number of features related to the main themes were also identified and can be found in Appendix II. Content analysis was performed using these common keywords and features to search for evidence of indirect reporting of *transformability adaptability* and *persistence* within the 2016, 2017 and 2018 IARs. This evidence was identified and entered into a number of spread sheets. The evidence found that indicated indirect reporting on *transformation* was then categorised into either *forced transformation* or *deliberate transformation* by making use of the understanding that was gained on these two types of *transformation* in the literature review (Johnson, et al., 2017). Secondly, in line with the definitions of *general resilience or specified resilience* discussed in the literature review all the evidence of indirect reporting of organisational resilience was reviewed and classified as one of the two types of resilience (Cork, 2011; Carpenter et al., 2001; Folke, 2016; Van der Merwe, et al., 2018). These additional classifications provided additional sub-themes for the research. After this process was completed, the three reports were read looking for any evidence of reporting of the themes or sub-themes that had not been noticed during the content analysis. For example, indications of *building adaptive capacity* and *specified resilience* were sought by looking for evidence regarding the training and development of staff (BSI, 2014), whereas signs of *transformation* and the *development of general resilience* were sought by looking for evidence in the organisation's safety culture at a strategic level (van der Merwe, et al., 2018). An example of possible training programs to build adaptive capacity and specified resilience would be the specialised training of security guards in line with changes to National Key Point regulations

(Eskom, 2016). Evidence of reporting of organisational responses to internal or external changes was also sought (Folke, 2016).

Indirect reporting on resilience was sought relating to HR management policies and procedures. Evidence of these policies was sought by searching for reporting on training aimed at core staff members, general training, group incentives and wellness programs (Lengnick-Hall, et al., 2011). Reporting related to the organisations culture was also investigated, for example whether there is reporting on learning from incidents or evidence of encouraging innovation (Barasa, et al., 2018). “A number of governance practices are identified as critical for organizational resilience” (Barasa, et al., 2018, p498). Thus indications of reporting of changes to the organisations business model was also sought. Linnenluecke (2017), refers to how organisations adapt their business model in order to cope with the dynamic world we live in. According to Hamel and Valinkgas (2003) resilience requires innovation, evidence of reporting of innovation was also pursued.

The aim was not to summarise the data, but to gain some insight from the evidence that was collected as regards the amount of reporting on organisational resilience that was found within the IARs. This is further expanded upon in the results and discussion chapters later on.

3.5. Ethical Considerations

The IARs (Eskom, 2016, 2017, 2018) are public information. The researcher is currently a full-time employee of Eskom, and thus is aware of the potential for personal bias that could influence the research (Noble and Smith, 2015). To minimise this bias, the researcher’s aim was “ensuring interpretations of data are consistent and transparent” (Noble and Smith, 2015, p.2) and data analysis followed strict alignment with the definitions and explanations of resilience from the literature outlined in the previous chapter. Also noteworthy is that no internal Eskom documents were used for the research, with data collection solely dependent on what was publically disclosed in the three years’ IARs.

This research used publically available data that does not pose any risk to any persons and / or organisations associated with the data. This exemption is based on Section 1.1.8 of DoH (2015) Ethics in Health Research Principles, processes and structures 2nd Edition, Pretoria. https://www.ru.ac.za/media/rhodesuniversity/content/ethics/documents/nationalguidelines/DOH_(2015)_Ethics_in_health_research_Principles,_processes_and_structures.pdf

4. CHAPTER 4: RESULTS AND DISCUSSION

4.1. Introduction

This chapter provides the results from the research and discusses these findings. There is clearly evidence of reporting of organisational resilience within the Eskom IAR's of 2016, 2017 and 2018. This evidence includes reporting on both direct and indirect reporting of organisational resilience. The direct reporting noted in the reports is related to evidence found describing the resilience programme and resilience initiatives that have been implemented within Eskom. The indirect reporting refers to reporting that falls into the three organisational resilience themes that were identified beforehand in the literature review. Namely, *transformability, adaptability and persistence*. Biggs, et al. 2015 cited in Folke (2016) view resilience as "the capacity of a social-ecological system to sustain human well-being in the face of change, by *persisting and adapting or transforming* in response to change." It is important to note that the results do not make any inferences as to whether the evidence obtained regarding reporting of organisational resilience is enhancing or degrading Eskom's organisational resilience. The results and discussion regarding direct and indirect reporting of organisational resilience are presented separately.

4.2. Direct Reporting on Resilience

Evidence of direct reporting of resilience refers to any direct references to the concept of resilience, such as the resilience programme and the resilience initiatives that Eskom has reported on within the IAR's. When a PDF word search was performed on the Eskom IAR for 2016, 2017, 2018 the word *resilience* was found within all three of the IAR's that were studied. Table 6 below displays the results obtained from the PDF word count (Eskom 2016, 2017, 2018) of the word *resilience*. With the word resilience only being mentioned 6 times in the 2017 it is clear that this was much less than in the other two years examined. Further analyses of the direct references to the word 'resilience' that were found within each IAR is found below Table 6.

Table 6: Resilience word count (Eskom 2016, 2017, 2018).

Year	Word count for the word '*Resilience*'
2016	17
2017	6
2018	14

4.2.1. 2016 Integrated Annual Report

The PDF (Eskom, 2016) word count indicated that the word resilience was referenced 17 times in the 2016 report. These references to resilience were found where the report referenced the Enterprise resilience programme in the 2016 IAR. "Our Enterprise Resilience Programme addresses those risks inherent to our operations that would have a significant consequence should they materialize" (Eskom, 2016, p.24). In this IAR evidence was found of the resilience programme and there was a discussion regarding the Eskom enterprise resilience model (Eskom, 2016). The model is depicted below as Figure 7. The first part of the model 'anticipate, identify and adapt refers to the type of resilience that Denyer (2017) speaks of i.e. defensive organisational resilience that attempts to stop bad things from happening.

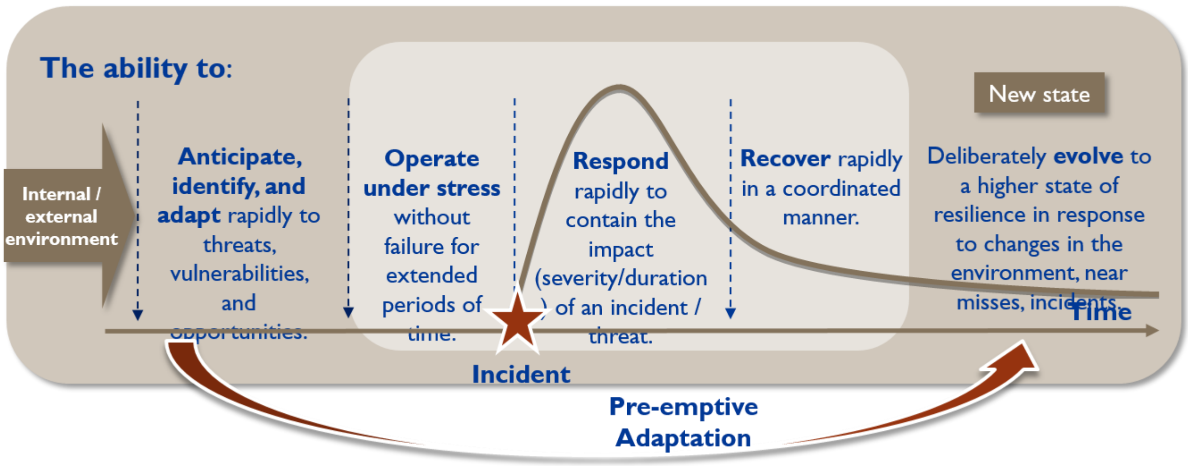


Figure 7: Eskom Enterprise Resilience model (Eskom, 2016, p.24).

Furthermore the model (Eskom 2016), refers to the ability to adapt, respond, recover and evolve from a disruption from either the internal and/or external environment. Numerous authors express resilience as having the ability to carry out these steps in response to internal and external disruption (Folke, 2016; Folke, et al., 2010; Ruiz-Martin, et al., 2018). The model (Eskom, 2016) also refers to a number of the features of organisational resilience mentioned in chapter 2 such as anticipate, respond (Hollnagel, 2010) respond, and recover. (Seville, et al., 2006). These are features related to an organisations survival. The idea of evolving and being more resilient can be viewed as finding a way to make an incident into an opportunity. Johnson, et al. (2017) refers to transformation and evolving to a new system. This is the new state referred to in Figure 7. Folke (2016) and van der Merwe, et al. (2018) refer to evolving and thriving. Which indicates that Figure 7 explains a process of surviving and thriving. The Enterprise Resilience model demonstrates a method of communicating about resilience with internal stakeholders. However, the report does not expand on whether all staff are aware or understand the model. This IAR also speaks about key parts of the resilience programme namely the implementation of systems to address business continuity and disaster risks (Eskom, 2016). A number of authors within the literature including Bhamra, et al., (2011), refer to resilience and disaster management. The IAR also speaks about the Resilience Programme addressing disaster management, emergency preparedness and business continuity at a national, provincial and divisional level. This evidence included reporting on the Provincial Resilience Teams and the allocation of Executive Committee members to sponsor National disaster priority readiness (Eskom, 2016). Reporting on the involvement of senior management to support the resilience initiatives indicates that resilience management is important at a strategic level within the organisation. This is in line with the view of Winnard et al. (2011) that explain strategic level involvement results in resilience, long term sustainability and the organisation thriving. There is also reference to reporting on readiness exercises including a national black out readiness exercise. The report speaks about the exercises aiming to improve readiness response and the learning that was gained. Learning from incidents reiterates the concept of resilience (Barasa, et al., 2018). Thus from the direct reporting of the word 'resilience' in the 2016 IAR quite a lot of information was gained in terms of the resilience initiatives within Eskom in 2016.

4.2.2. 2017 Integrated Annual Report

In the 2017 IAR (Eskom, 2017) the direct reporting on organisational resilience is very limited. The PDF (Eskom, 2017) word count resulted in only 6 references to the word resilience. The resilience programme was not referenced at all in this report (Eskom, 2017). The direct reporting of organisational resilience is limited to the reference made to resilience initiatives and the combined assurance measures that are in place to oversee implementation of resilience. "Strategic risks are identified through risk and resilience workshops with Exco and Board, supported by a bottom-up review by divisions and the involvement of key subject matter experts in the business." (Eskom, 2017, p.28). This is similar to the 2016 IAR in that there is evidence of reporting of involvement of senior management in the building of organisational resilience. There clearly is a lot less direct reporting of resilience in the 2017 IAR, as compared to the other two years studied.

4.2.3. 2018 Integrated Annual Report

The PDF (Eskom, 2018) word count for the word resilience in the 2018 IAR is 14 words. Which is an increase from the word count of 6 in the previous year. One of the references to resilience refers to collaboration. "Collaboration and regular interaction with all stakeholder groups is essential to our long-term resilience and to build trusting relationships." (Eskom, 2018, p.23). This is a clear indication of direct reporting of resilience. According to Barasa, et al. (2018), resilient organisations nurture collaboration. In 2018 the policy and plan for the management of Risk and Resilience is reported on. "The Board has delegated this responsibility to management, through the Risk and Resilience Management Policy and Plan, in support of the organisation achieving its strategic objectives" (Eskom, 2018, p.23). Again as mentioned in the evidence from the previous two years this reference can be seen as direct reporting of the implementation of resilience at a strategic level. Koronis and Ponis (2018), state that organisational resilience requires strategic adaptation to cope with stakeholder requests, external disruptions and change. The 2018 report (Eskom, 2018) also reports on the Enterprise Resilience Programme and the Enterprise Resilience Department. There is also reporting on the workshops that were held with the Board and Exco run by the Enterprise risk and Resilience are departments (Eskom, 2018). There is also reporting on the resilience programme around compliance with the Disaster Management Act 2002, the implementation of ISO 22301 - business continuity management and the implementation of the FEMA incident command system. A national exercise and nine provincial exercises are also reported on. It is clearly reported in the IAR that “lessons learnt are being addressed” (Eskom, 2018, p.43). According to Ciapessoni, et al., (2019), lessons learned is a clear indication of building resilience. “Learning deals with the ability of an organization to adapt over time to stress and challenges, such that organizations learn from their experiences, which then enable them to adapt in future challenges” (Powley, 2009, p1292). An actual incident (where 950 miners lives were at risk) that occurred at the beginning of February 2018 where the Provincial Joint Command Centres (PJCCs) were activated was reported on. The report indicates this was the first time the incident command system mentioned above was used (Eskom, 2018). This report also makes mention of the combined assurance model that provides oversight over resilience implementation. It is clear that the 2018 IAR has evidence of a number instances of direct reporting of direct organisational resilience.

In conclusion, there is definitely direct reporting of organisational resilience in the IARs that were researched as evidenced by the information that was found regarding organisational resilience using the PDF (Eskom 2016, 2017, 2018) word count. Although the volume of reporting definitely varied between the years, no trend can be observed. The direct reporting in all of the years researched was not extensive but the evidence that was found was in line with what was expected considering the IARs are not intended to report directly on organisational resilience.

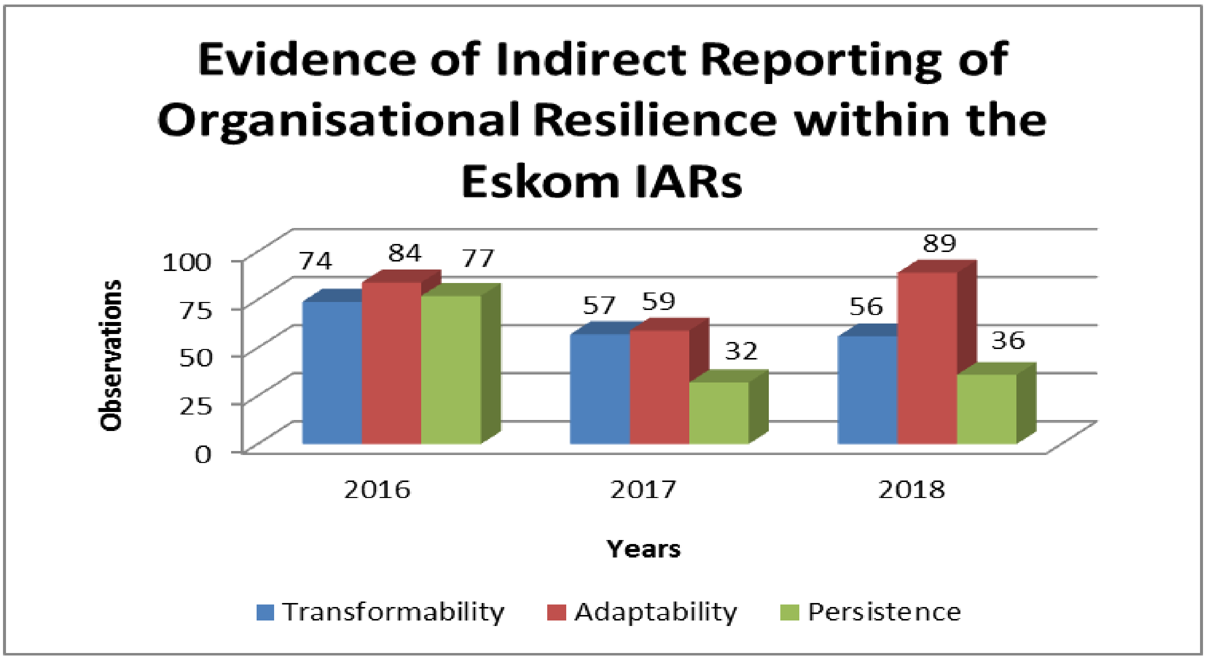
4.3. Indirect reporting of resilience.

4.3.1. Findings

Evidence of indirect reporting of organisational resilience was also found during the research. As IARs are not designed to report specifically on organisational resilience limited direct reporting of organisational resilience was anticipated to be found within the IARs. However, more evidence on indirect reporting of organisational resilience was expected due to the non-financial information that is reported on within IARs. The findings are presented below with the assistance of a number of graphs to display the observations that were discovered.

Finding 1: Evidence of *transformability, adaptability* and *persistence.*

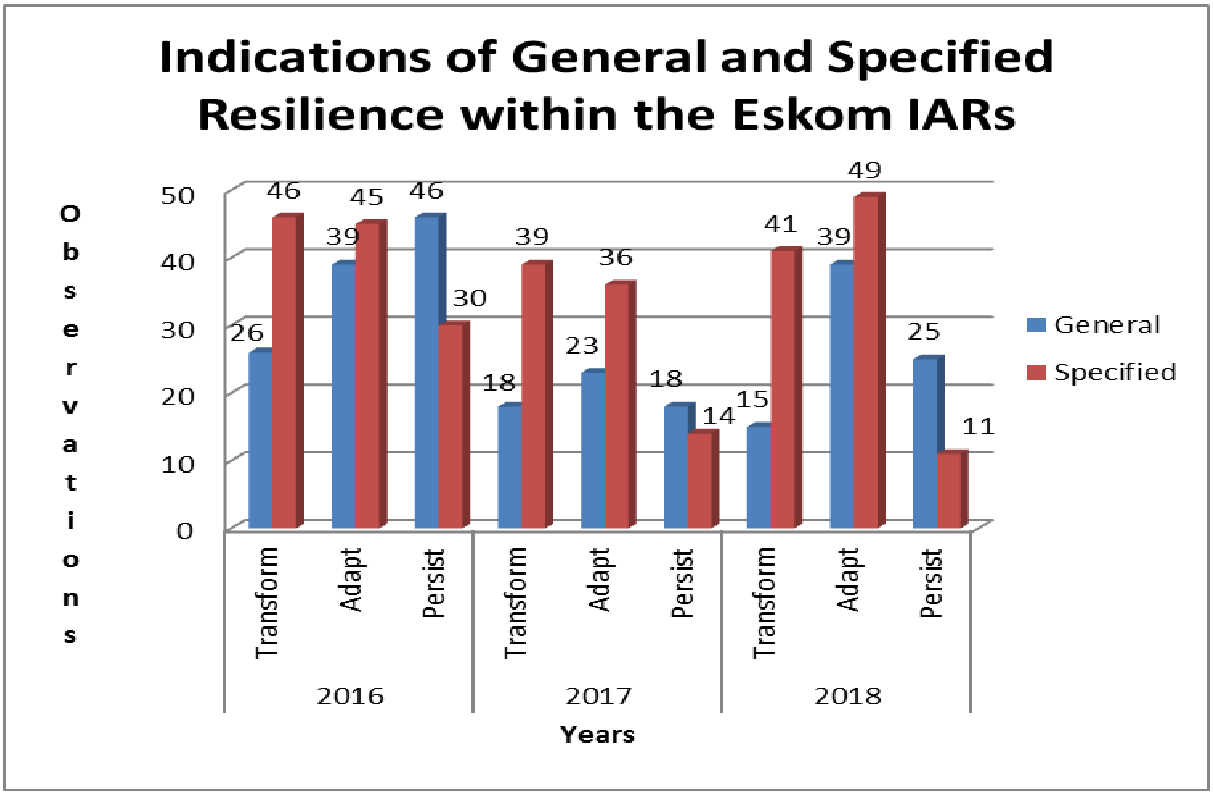
As can be seen below in Graph 1 all three years investigated clearly showed indications of indirect reporting of organisational resilience.



Graph 1: Evidence of Indirect Reporting of Organisational Resilience within the Eskom IARs

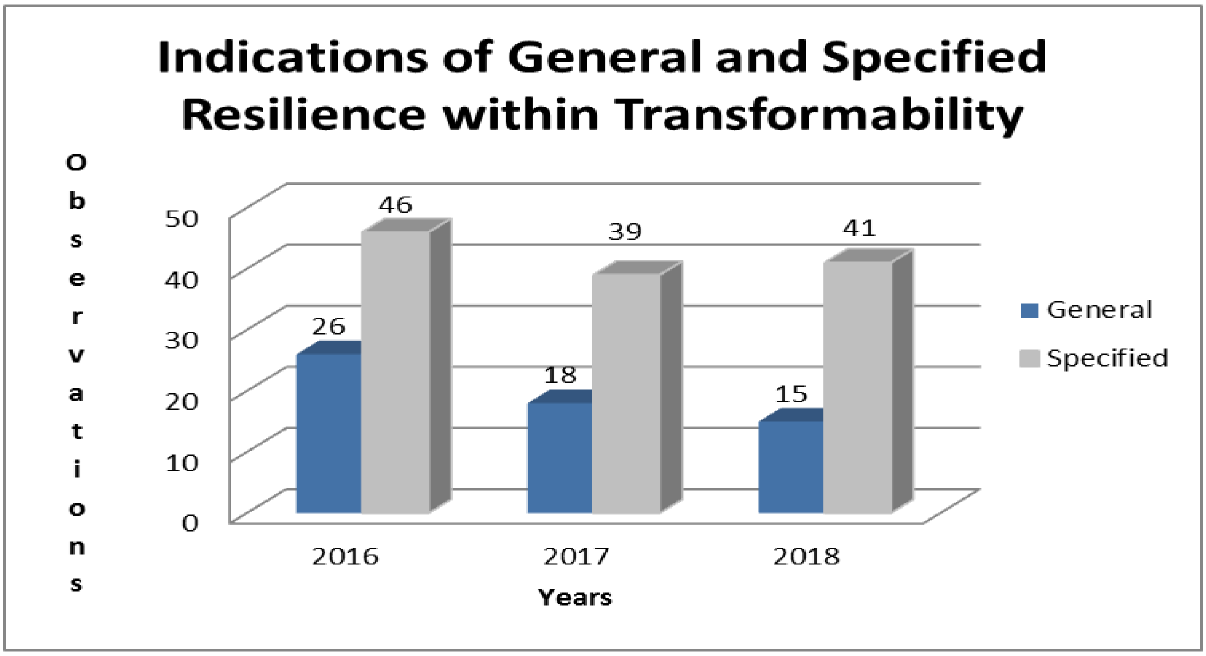
Graph 1 clearly indicates that there was evidence of indirect reporting of organisational resilience within the three IARs that were researched. The graph indicates the number of observations that were found in terms of organisational resilience within the three main themes that had been identified before the search began. Namely, *transformability, adaptability and persistence.* No clear trends were identified between the years in terms of the main themes. However, there seemed to be more reporting (number of observations) of *adaptability* within all three of the years reported on. In the 2018 IAR significantly more reporting on *adaptability* was found in comparison to the other two themes in that year.

Finding 2: Indications of General and Specified Resilience



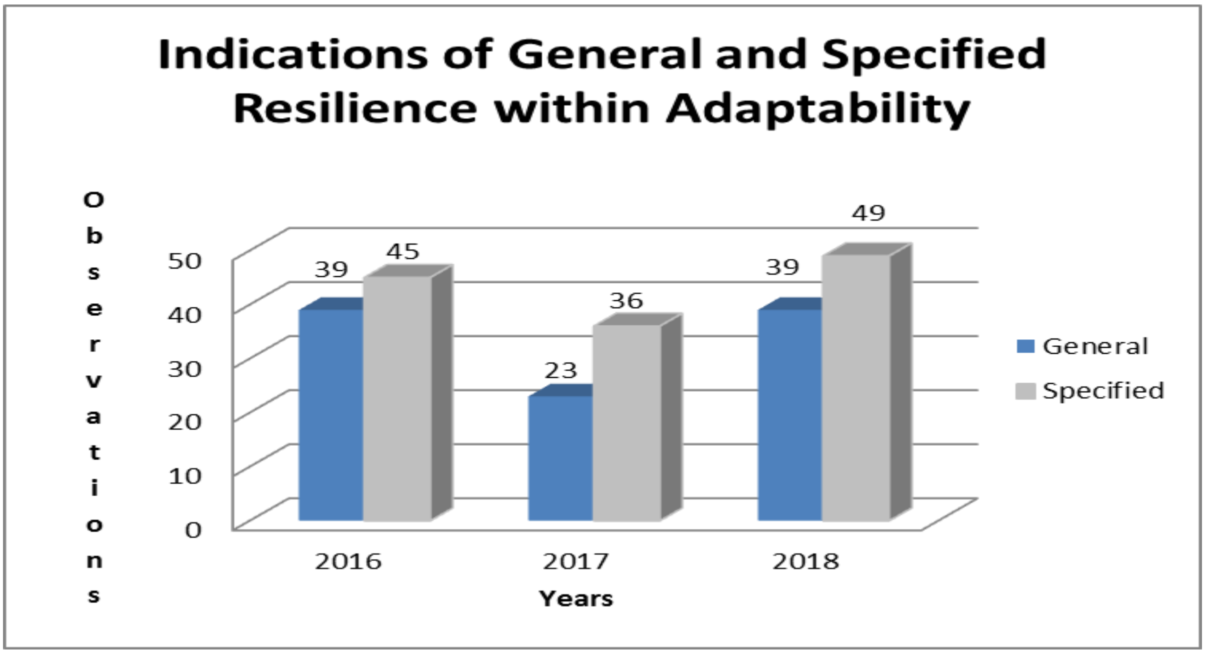
Graph 2: Evidence of General and Specified Resilience

Graph 2 above indicates the classification of the indirect reporting of organisational resilience in terms of general and specified resilience. The graph clearly shows there is evidence of reporting of both forms of resilience. The indications above have been further separated into the three main themes in order to better analyse the trends.



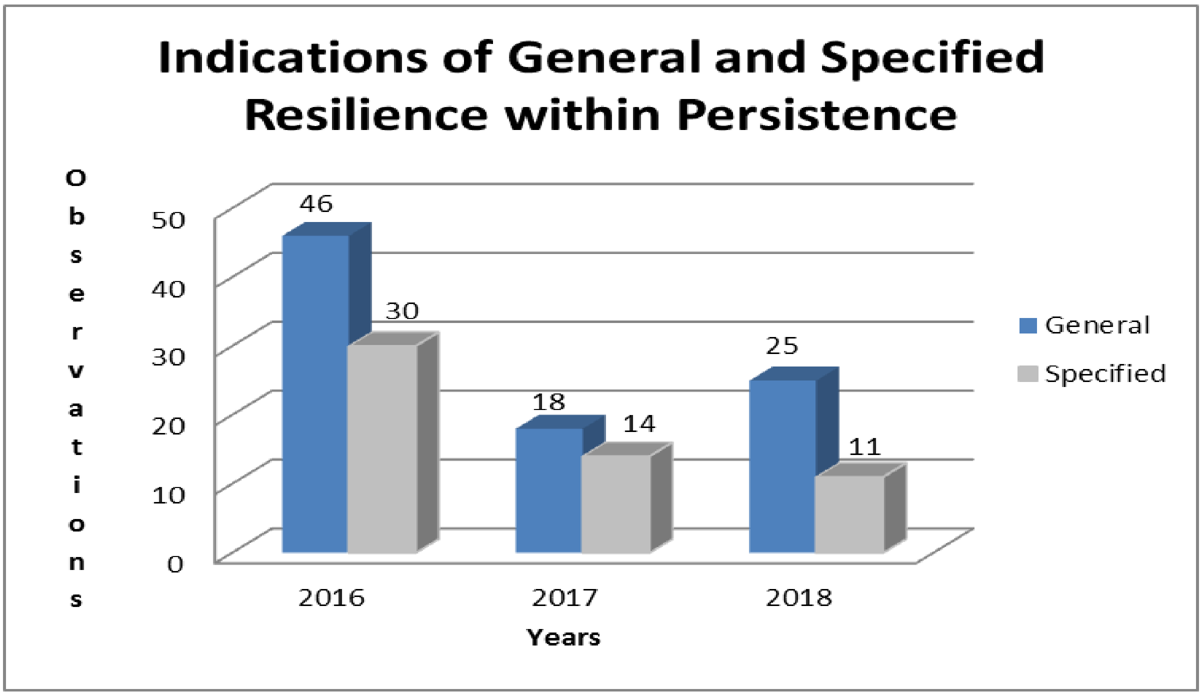
Graph 3: Indications of General and Specified Resilience within Transformability

Within *transformability* it is clear that there is more specified resilience than general resilience in all of the IARs that were scrutinised. Within *transformability* the number of observations for both general and specified resilience are very similar across all three years studied



Graph 4: Indications of General and Specified Resilience within Adaptability

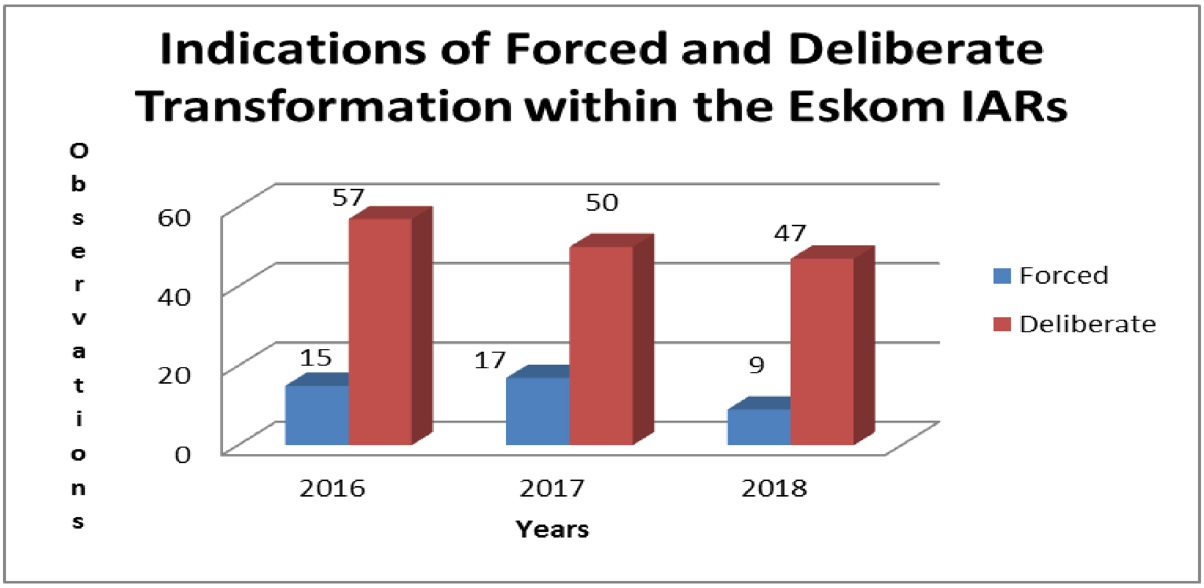
Graph 4 above indicates reporting of more specified resilience than general resilience for all three years studied. However, the difference between the number of observations found between the reporting of general and specified resilience within *adaptability* is much smaller than the difference found within *transformability*.



Graph 5: Indications of General and Specified Resilience within Persistence

As compared to graph 3 and 4, within the *persistence* theme, there is a completely different result as compared to the other two main themes (*transformability and adaptability*). Within the *persistence* component general resilience is clearly reported on more than specified resilience in all three years researched.

Finding 3: Evidence of Reporting of Types of Transformation



Graph 6: Evidence of Forced and Deliberate Transformation

Graph 6 indicates the split between the number of observations (reporting) of forced transformation and deliberate transformation that were observed within the main theme of *transformability* for each of the years. There is a very clear pattern showing that in all the years studied that there is substantially more reporting on deliberate transformation as compared to forced transformation. The observations are very consistent between all three years researched.

4.3.2. Discussion

This section will discuss the findings regarding the indirect reporting of organisational resilience within the Eskom IARs for 2016, 2017 and 2018. The discussion has been divided into three sections in line with the findings above.

Finding 1: Evidence of *transformability*, *adaptability* and *persistence*

The fact that all the main themes are evidenced indicates the concept of resilience is being considered within Eskom (Folke, 2016). Observing all the main themes *transformability, adaptability, and persistence* potentially indicates that organisational resilience is being considered at a strategic, tactical and operational level (van der Merwe, et al., 2018). If there is resilience at a strategic and an operational level this could point toward contributing to building long term and short term sustainability (Winnard, et al., 2014).

The evidence of *transformation* potentially indicates that Eskom may be trying to evolve (Johnson, et al. 2017) in order to keep up with Globalisation 4.0 (World Economic Forum, 2019). The almost equal balance of all three themes in 2016 and 2017 indicates in these two years Eskom was attempting to balance change and continuity. There is no way to know if this was an intentional decision.

The fact that all three of the main themes are evidenced in all the years studied indicates that the IARs can potentially provide a useful communication platform for stakeholders to obtain and compare valuable information regarding organisational resilience on an annual basis. This is important in a VUCA world (Cheese, 2016; Seville, 2006). Consistency between the IARs seems to be indicated due to the similarity in the amount of reporting found in all the years studied. Consistency is a guiding principle of integrated reporting (IIRC, 2011). As described in Chapter 2 trying to maintain organisational resilience is a continuous process. (BSI, 2014). Therefore finding evidence of reporting of organisational resilience in all the years researched is in line with an organisation that is continuously pursuing organisational resilience. The evidence found does not indicate whether sufficient *transformation or adaptation* is taking place in order to thrive in the VUCA world. However, the evidence found indicating transformation and adaptation may suggest that Eskom is better equipped to operate when faced with challenges, now and in the future (Barasa, et al., 2018). This type of information is essential for stakeholders to be aware of in order to assess an organisations ability to perform and create value in the short, medium and long term (IIRC, 2011). The similarity in the number of observations indicating transformability between the years could indicate that the particular systems reported on are busy evolving (Ruiz-Martin, et al., 2018). Thus this process of evolution may be reported on over a number of years. Evidence of transformability can potentially be viewed as management (van der Merwe, et al., 2018) attempting to make strategic changes in order to thrive in a VUCA world.

The signs of persistence do not explain whether this persistence is more related to resistance rather than intentional persistence (Limnios, et al., 2014). As mentioned by Bhamra, et al. (2011), resilience is a measure of the persistence within a system and its capacity to cope with various disturbances while still maintaining the relationships that exist within the system. Knowing whether an organisation has any level of persistence is vital information for a stakeholder to be aware of, especially due to the importance of creating a common understanding of organisational resilience (Commonwealth of Australia, 2010).

According to the British Standards Institution (2014), organisational resilience is relatively mature if organisational resilience is implemented consistently over a number of years, and activities are repeated. The findings do seem to indicate both of these elements. An example of this could be the evidence found in support of the Eskom value of ‘zero harm’ and the various safety initiatives that were reported on in all three years in support of this organisational value (Eskom 2016; Eskom 2017; Eskom 2018).

A number of examples of organisational resilience that were found within the reports will be shared below. Such as the evidence of gender and disability transformation that was found in all three years was the. In 2016 and 2017 IAR’s there is a dedicated section within ‘Operating performance’ dedicated to Transformation and social sustainability. 2016 – p.76; 2017 – p.69 (Eskom 2016,2017). There is no Transformation and social sustainability section in the 2018 IAR (Eskom, 2018). However, there is still some reporting in 2018 as regards gender and disability transformation. Bahadur, et al. (2016, p.14), makes mention that in order to institute change “existing power relations in the literature on transformation, gender dynamics and meaningful inclusion of marginalised groups are key in effecting transformational change”.

The research found a number of references to governance which related to organisational resilience, such as appointing a new Board in 2018 (Eskom, 2018). “A number of governance practices are identified as critical for organizational resilience” (Barasa, et al., 2018). Numerous indications of changes to the business model affecting organisational resilience were observed in the IARs (Eskom, 2017; Eskom, 2016). Linnenluecke (2017), refers to how organisations adapt their business model in order to cope with the dynamic world we live in. Changes to the business model that were reported on in the IARs included changes and proposed changes to the legal structure of the business, planned changes to the business model due to the IRP were also reported, changes due to new units being connected at the new power stations, the threat of closure of older stations and the connection of IPP’s.

According to Hamel and Valikangas (2003), resilience requires innovation. A large amount of evidence of innovation was found in the IARs. Examples included the organisations value of innovation and numerous references to research development (Eskom, 2016; Eskom 2017; Eskom, 2018).

Indirect reporting on resilience was found related to HR management policies and procedures (Lengnick-Hall, et al., 2011). This was evidenced through training, remuneration, an income differential exercise, incentives, and wellness programs (Eskom, 2018). Indications related to the organisations culture (Barasa, et al., 2018) were also evidenced. Evidence was found in examples such as learning from incidents and exercises and the organisations positive view and encouragement of research innovation (Eskom, 2016; Eskom 2017; Eskom, 2018). A number of innovative projects were also evidenced. An example of training related to specified resilience was the initiative to train welders (Eskom, 2016).

Some of the variation in reporting over the years studied could be related to the initiatives being reported on. For instance in the 2016 IAR there was a lot more detailed reporting on the driver safety initiatives (Eskom, 2016) that were being introduced whereas in the 2017 IARs the reporting only briefly mentioned driver safety.

As evidenced by the examples mentioned above there is clearly evidence of reporting of organisational resilience in all three years that were researched. Although this information does not provide an indication of whether organisational resilience is being built or eroded.

Finding 2: Indications of General and Specified Resilience

As mentioned in the literature review an organisation requires a combination of both types of resilience, namely general and specified resilience (Cork, 2011). Thus finding evidence that indicates the building of specified and general resilience are both evident in the IARs researched is in line with what is expected to be found within a resilient organisation (Nykvist and von Heland, 2014). With the fact that there is usually a trade-off between these two types of resilience (Folke, 2016) the fact that there is evidence of reporting of both these types of resilience can be viewed in a positive light. The fact that overall the difference between the observations of general and specified resilience is not huge indicates that the overall resilience of the organisation is not being eroded by either type of resilience. (Folke, 2106).

The indications of specified resilience could indicate specific solutions / projects to resolve a specific challenge / issue (Carpenter, et al., 2001). This specific resilience contributes to building overall organisational resilience. Evidence of this reporting of specified resilience indicates to stakeholders that the organisation is building resilience for a particular part of the organisation (Folke, 2016). The findings indicate more specified resilience exists within the themes of transformability and adaptability. This is in line with an organisation trying to change to deal with a specific challenge that has been identified (Folke, et al., 2010). This may also be due to the fact that there is often more extensive reporting regarding changes and new projects and not general day to day operations.

General resilience is more difficult to build as it is used for building capacity to maintain a system exposed to unforeseen events (Carpenter, et al., 2012). Justifying general resilience can be more difficult as it does not involve getting approval for something specific. Thus in line with the findings it is expected that it is more suited to persistence where policies and governance are used to maintain a certain level of persistence (Carpenter, et al., 2012). Thus it makes sense that evidence of more general resilience has been reported within the theme of persistence. But at the same time the evidence of some level of general resilience within all the themes is a positive indication for the overall resilience of Eskom. Once more it is useful for stakeholders to know that the organisation is preparing for the “unknown and the unknowable” (Kates and Clark 1996 cited in Folke, 2016). Signs of general resilience were observed for example in the development of a programme to train supervisors about safety (Eskom, 2016).

Signs of the development of general resilience was evidenced in the organisation’s safety culture (Eskom, 2016) at a strategic level (Van der Merwe, et al., 2018). In terms of more specific programs, a number of safety initiatives were reported on such as driver safety (Eskom, 2106). This is line with the thought that if an organisation would specifically like to transform something it targets that specific area. General resilience examples found relating to training related to maintaining current levels of skill rather than teaching a new skill. It is about generally making an organisation more resilient and does not target a person for training but the whole organisation such as the evidence found regarding Occupational Health and Safety (OHS) training and development (Eskom, 2017), and employees declaring conflicts of interest annually (Eskom, 2016). The organisational value of zero harm to people and the environment is an example of building general resilience (Eskom, 2018). Systems policies and procedures also aim at enhancing general resilience. Achieving general resilience is more difficult. Building and maintaining general resilience needs policies to be put in place. The benefits of general resilience are often not seen for a long time. More reporting on specified resilience could indicate that general resilience is not as important to the organisation or more likely it could also be related to the fact that general resilience is harder to build (Walker and Salt, 2012). Being aware of how much general, specified, or both types of resilience an organisation has allows stakeholders to better understand how the organisation will cope with the many uncertainties of the future. This includes the known and unknown. The evidence of general resilience that was found indicates that Eskom has knowledge and an understanding of numerous diverse approaches that can potentially be utilised when facing unexpected change (Nykvist and von Heland Source, 2014). The fact that this general resilience exists within the organisation indicates that some capacity exists for Eskom to cope better with the challenges of operating in a VUCA world. Finding evidence of reporting on specified resilience is a good sign for a stakeholder, as it suggests that the organisation is considering what specific events in the future could have a negative impact on the organisation and then putting measures in place to address these specific events.

Finding 3: Evidence of Types of Transformation

Significantly more reporting on deliberate transformation was evidenced in all three IARs. As described in the literature review, Folke, et al. (2010, p.24) says deliberate transformation is "initiated by the people involved", and forced transformation is a forced process that is initiated "by changing environmental or socioeconomic conditions". Thus the findings indicate that the deliberate transformation observed in the IARs is initiated from within Eskom.

There is a lot more reporting of deliberate transformation as compared to the reporting on forced transformation. The fact that more evidence of deliberate transformation was found indicates that management within Eskom is initiating proactive changes. This according to Kerr (2015) can be seen as a way to take advantage of opportunities. Deliberate transformation can also occur in order to transform before being forced to change e.g. to possible future legislative changes. This can be classified as building proactive resilience (Hollnagel, 2011). The evidence of forced transformation that was observed in the research is related to issues such as legislation and governance. For example the Employment Equity Act 1998, carbon tax (Eskom, 2018), the Companies Act 2008, and the National Environmental Management Act 1998. Deliberate transformation rather than forced transformation may indicate that the organisation is trying to implement proactive changes which in a VUCA world could indicate a method of enhancing and building organisational resilience. Eskom could be making these deliberate changes to deal with changing environmental and socioeconomic conditions (Eskom, 2016; Eskom, 2017; Eskom, 2018; Folke, et al., 2010).

Folke, et al., (2010), explains that resilience thinking is needed to implement deliberate transformation. This resilience thinking requires an assessment of the benefits of the current situation versus the alternative in order to maintain the current system or to establish a whole new system. The evidence of deliberate transformation may indicate Eskom is using resilience thinking.

5. CHAPTER 5: CONCLUSION

The aim of this research was to establish whether there is evidence of reporting of organisational resilience within the Eskom IARs. In conclusion, even though IARs are not designed to specifically to report on organisational resilience, there is conclusive evidence of reporting of organisational resilience in the Eskom integrated reports. Clear evidence of both reporting on direct and reporting on indirect organisational resilience was found within the three IARs that were studied. This suggests that using the IARs is a potential method of communicating with stakeholders regarding organisational resilience. Understanding what the organisation is doing in terms of resilience may help stakeholders decide if Eskom will be able to deliver on their mandate of "providing a stable electricity supply in a sustainable and efficient manner" (Eskom, 2018, p.8)?

Without a doubt evidence of reporting of organisational resilience was found within all three of the IARs studied. Indications of direct reporting was found using a PDF word count of the word resilience. Evidence of indirect reporting was found using the three themes that were identified beforehand. The references to the word resilience within all three of the reports clearly identified direct reporting of organisational resilience within the reports studied. In all three of the IARs researched clear indications of indirect reporting of organisational resilience was found using the three main themes *transformability, adaptability and persistence.*

Evidence of both general and specified resilience across all the main themes was observed. In all three years researched there is more reporting on specified resilience within the two main themes of *transformability and adaptability* and in contrast in all three years general resilience is reported on more than specified resilience within the theme of *persistence.* These findings do indicate some positive implications for organisational resilience as both types of resilience are required to build organisational resilience (Cork, 2011).

Signs of reporting on *transformation* was found in all the reports studied. There was noticeably more reporting of deliberate transformation as compared to forced transformation. This indicates that Eskom management does not only make changes when forced to do so but makes decisions and implements transformation proactively.

The fact that evidence of reporting of organisational resilience was found within the IARs indicates some level of resilience within Eskom. Which could imply a better chance of survival and perhaps even the potential for some areas of the organisation to thrive (Barasa, et al., 2018). However, one cannot infer anything regarding the overall level of organisational resilience from the evidence found of reporting of organisational resilience. Areas within the organisation where organisational resilience is nurtured may be more resilient than other areas. From the evidence found, there is a clear indication that management is attempting to build some level of resilience. If Eskom aims to exist in this VUCA world, organisational resilience will have to be a goal of the organisation (Vos, M., et al., 2017).

Although this research has not commented on whether the indications of resilience are enhancing or degrading resilience, it most likely possible for users of the IARs that have a basic understanding of organisational resilience to draw their own conclusions.

5.1. Future research

Based on the evidence that was found during the research, it seems that it would be possible to perform an assessment on Eskom or on another organisations level of organisational resilience using IARs. This non-financial information on organisational resilience could possibly be used to make comparisons regarding resilience between IARs produced in different years. Another aspect that could be researched in a lot more detail is the different contexts (organisational indicators) within the IARs where reporting on indirect organisational resilience is observed. Such as governance, material resources, etc (Barasa, et al., 2018). This could provide insights into the functional areas where organisational resilience is being either built or eroded.

An investigation into the impact of past resilience decisions could also be analysed by looking at past IARs and comparing them with recent IARs. Especially as there seems to be evidence of consistency in the volume of resilience reporting between the years researched.

Kerr (2015), mentions resilience shouldn't be seen by organisations as a defensive strategy, but instead should be seen as a way to take advantage of opportunities. It would be interesting to use the IARs to research if Eskom is using resilience as a defensive strategy or to take advantage of opportunities.

An assessment of organisational resilience could be carried out using the IARs to establish if the resilience features reported on in the IAR's are building or degrading the resilience of the organisation. This could be used to assist with the restructuring of Eskom. Some parts of Eskom may not be desirable to keep. Thus the results could assist with deciding which portions of the organisation should persist and which portions need to transform and what portions should adapt? The main question is whether Eskom should be resilient in its current format?

5.2. Limitation of the research

The weakness with this research is that it does not provide an indication as to whether Eskom's resilience is being enhanced or degraded. Secondly, this research does not provide any insights into the resilience of the power system.

5.3. Recommendations to management

The results of the research indicated that there is evidence of reporting of organisational resilience within the integrated reports. Below are some recommendations that will be suggested to the Eskom Integrated Reporting team, the Eskom Enterprise Resilience team and Eskom management.

Recommendation 1: The Integrated Reporting Team

As the integrated reports are not designed to report on resilience, especially indirect reporting of resilience the team that puts together the integrated reports are most likely not aware of the level of reporting of organisational resilience that they have achieved. Thus it is recommended that an awareness session is held with the integrated reporting team on organisational resilience and the benefits to the organisation of adding more resilience orientated reporting which could contribute to the creation of a "body of knowledge and a common understanding of organisational resilience" (Commonwealth of Australia, 2010). During this awareness session the results of this research can be shared so that the team can get an idea of the usefulness of the non-financial information relating to organisational resilience that was obtained from the reports. This would include going into detail regarding examples of direct and indirect reporting of organisational resilience that was found within the reports. This could assist the team develop a better understanding of what organisational resilience is, especially when it is not obvious. This could be further enhanced with a facilitated discussion with the stakeholder management team to consider what is being reported on resilience and how different stakeholders might perceive what is reported.

Recommendation 2: Eskom Enterprise Resilience Team

A discussion with the Eskom Enterprise Resilience team regarding the findings from the research is recommended. Especially in terms of the information regarding direct reporting of organisational resilience found in the three years investigated. The intention would be to share the fact that the information given annually to the integrated reporting by the resilience team is a form of communication that can also contribute to building the organisations resilience (BSI, 2014; Gover and Duxberry, 2018). The results of the research and possible future research possibilities using the IARs could be shared. For example, possibly suggesting the use of the IARs as an additional platform for assessing the level of organisational resilience within Eskom.

Before the next IAR is finalised the researcher plans to set up and facilitate a workshop with the integrated reporting team and the enterprise resilience team. The intention would be to discuss the nature and type of reporting concerning organisational resilience in the latest IAR.

The idea would be to assist in ensuring both teams assist each other to ensure that as much useful information regarding organisational resilience within Eskom is be shared with stakeholders.

Recommendation 3: Eskom Management

With the increased demand for improved communication from stakeholders (PWC, 2015), it will be recommended to Eskom management to continue to review and improve how they communicate with stakeholders. The research will be shared with management in terms of the type of reporting regarding organisational resilience that was gained from the integrated reports and what stakeholders may interpret from this reporting. It will be suggested to management that they should consider increasing the reporting on resilience more explicitly, including both direct and indirect reporting of organisational resilience. According to the BSI (2014), using formal communication regarding organisational resilience can be used as a method to increase organisational resilience.

Organisational resilience contributes to an organisation surviving and thriving (Denyer, 2017), thus it should be suggested as a focus area for management. Thus it will be recommended to management that improved public reporting (communication) with stakeholders which includes increased information sharing regarding organisational resilience will contribute to a shared meaning and greater resilience (Norris, et al., 2008). This will also enable stakeholders to make more informed decisions (PWC, 2015).

This research could be used to increase the general awareness within Eskom management as to the benefits of improved communication towards building organisational resilience (Gover and Duxberry, 2018). Especially since the 2018 report says the “Risk and Resilience Management Policy and Plan” is intended to support Eskom “achieving its strategic objectives” (Eskom, 2018, p.40). This could contribute achieving this strategic objective.

6. REFERENCES

Adams, S., and R. Simnett, 2011. Integrated Reporting: An Opportunity for Australia's Not-for-Profit Sector. [online] Australian Accounting Review 21 (3): 292–301. Available at: < https://doi.org/10.1111/j.1835-2561.2011.00143.x > [Accessed 15 April 2019].

Alcantra, P., 2018, Resilience is your competitive advantage. [online] Business Continuity Institute. White Paper. 12 January 2108. Available at: < https://www.thebci.org/resource/resilience-is-your-competitive-advantage.html > [Accessed 15 May 2018].

Anderies, J.M., Folke, C., Walker, B. and Ostrom, E., 2013. Aligning key concepts for global change policy: robustness, resilience, and sustainability. [online] Ecology and Society 18(2): 8. Available at: <http://dx.doi.org/10.5751/ES-05178-180208> [Accessed 25 July 2019].

Atkins, J. and Maroun, W., 2012. Integrated reporting in South Africa in 2012 Perspectives from South African institutional Investors. [online] Meditari Accountancy Research Vol. 23 No. 2, 2015. Available at: < www.emeraldinsight.com/2049-372X.htm > [Accessed 17 September 2019].

Bahadur, A., Lovell, E. and Pichon, F., 2016. Effectiveness in Building Resilience. Synthesis report for Oxfam's Resilience Outcome Area. [online] Oxfam Research Reports, February 2016. Available at: <https://oxfamilibrary.openrepository.com/bitstream/handle/10546/620103/er-effectiveness-resilience-building-080216-en.pdf?sequence=1 > [Accessed 6 June 2019].

Baker, L. and Phillips, J., 2018. Tensions in the transition: The politics of electricity distribution in South Africa [online] Environment and Planning C: Politics and Space 0(0). Available at: < http://dx.doi.org/10.1177/2399654418778590 > [Accessed 23 March 2019].

Barasa, E., Mbau R. and Gilson L., 2018. What is resilience and how can it be nurtured? A systematic review of empirical literature on organizational resilience. [online] International

Journal of Health Policy Management. 2018;7(6):491–503. Available at: < https://doi.org/10.15171/ijhpm.2018.06> [Accessed 7 March 2019].

Batabyal, A.A., 2000. An Analysis of Persistence, Resilience, and the Conservation of Keystone Species. [online] Economic Research Institute Study Papers. Paper 192. Available at: < https://digitalcommons.usu.edu/eri/192 > [Accessed 25 July 2019].

Bhamra, R., Dani, S. and Burnard, K., 2011. Resilience: the concept, a literature review and future directions. [online] International Journal of Production Research Vol. 49, No. 18, 15 September 2011, 5375–5393. Available at<http://0-search.ebscohost.com.wam.seals.ac.za/login.aspx?direct=true&db=edsbl&AN=RN296047222&site=eds-live> [Accessed 9 March 2018].

Bouaziz, F. and Hachicha, Z.S., 2018. Strategic human resource management practices and organizational resilience. [online] Journal of Management Development, Vol. 37 Issue: 7, pp.537-551. Available at: < https://doi.org/10.1108/JMD-11-2017-0358 > [Accessed 5 April 2019].

Braun, V. and Clarke, V., 2006. Using thematic analysis in psychology. [online] Qualitative Research in Psychology, 3 (2). pp.77-101. Available at < http://dx.doi.org/10.1191/1478088706qp063oa> [Accessed 2 May 2019].

British Standards Institution (BSI), 2014. BS 65000:2014: guidance on organizational resilience. [online] British Standards Institution, London, UK. Available at: < https://bsol.bsigroup.com/Bibliographic/BibliographicInfoData/000000000030258792 > [Accessed 19 July 2019].

Burnard, K., Bhamra, R., and Tsinopoulos C., 2018. Building Organizational Resilience: Four Configurations. [online] IEEE transactions on engineering management., 65 (3). pp. 351-362. Available at:<http://dro.dur.ac.uk/23940/1/23940.pdf> [Accessed 7 March 2019].

Busco, C., Frigo, M.L., Quattrone, P. and Riccaboni A., 2013. Redefining Corporate Accountability through Reporting. What happens when values and value creation meet?

[online] Strategic Finance. August 2013. Available at:< https://iris.luiss.it/retrieve/handle/11385/160813/27713/IMA%20-%20Busco%20et%20al.2013%20-%20Redefining%20corporate%20accountability%20through%20Integrated%20Reporting.pdf > [Accessed 18 September 2019].

Buzzanell, P.M., 2010. Resilience: talking, resisting, and imagining new normalcies into being. Journal of Communication, Vol. 60 No. 1, pp. 1-14. [online] Available at: < http://dx.doi.10.1111/j.1460-2466.2009.01469.x > [Accessed 20 May 2019].

Carpenter, S., Walker, B., Anderies J.M. and Abel N., 2001. From Metaphor to Measurement: Resilience of What to What? [online] Ecosystems, Vol. 4, No. 8 (Dec., 2001), pp. 765-781. Available at: < https://www.jstor.org/stable/3659056> [Accessed 22 March 2019].

Carpenter S.R., Arrow, K.J., Barrett, S., Biggs, R., Brock, W.A., Crépin, A., Engström, G., Folke, C., Hughes T.P., Kautsky, N., Li, C., McCarney, G., Meng, K., Mäler, K., Polasky, S., Scheffer, M., Shogren, J., Sterner T., Vincent, J.R., Walker, B., Xepapadeas, A. and de Zeeuw, A., 2012. General resilience to cope with extreme events. [online] Sustainability 4:3248-3259. Available at: <http://dx.doi.org/10.3390/su4123248> [Accessed 26 April 2019].

Cheese, P., 2016. Managing risk and building resilient organisations in a riskier world. Journal of Organizational Effectiveness: People and Performance, Vol. 3 Issue: 3, pp.323-331. [online] Available at: <https://doi.org/10.1108/JOEPP-07-2016-0044 > [Accessed 7 March 2018].

Ciapessoni, E., Cirio, D., Pitto, A., Panteli, M., van Harte, M. and Mak, C., 2019. Defining Power System Resilience. [online] CIGRE Reference Paper. 1 October 2019 C4.47 Working Group. Available at < https://e-cigre.org/article/cigre-reference-paper--defining-power-system-resilience > [Accessed 28 August 2019].

Commonwealth of Australia, 2010. Critical Infrastructure Resilience Strategy. [online] Available at: <

https://www.tisn.gov.au/Documents/Australian+Government+s+Critical+Infrastructure+Resilience+Strategy.pdf > [Accessed 7 March 2019].

Commonwealth of Australia, 2016. Organisational Resilience Good Business Guide. [online] Available at: < https://www.organisationalresilience.gov.au/resources/Documents/Organisational-Resilience-Good-Business-Guide.PDF > [Accessed 18 May 2019].

Cork, S., 2011. A framework for assessing resilience in SoE 2011 reporting. Report prepared for the Australian Government Department of Sustainability, Environment, Water, Population and Communities on behalf of the State of the Environment 2011 Committee. Canberra: DSEWPaC, 2011. Available at: < https://soe.environment.gov.au/sites/g/files/net806/f/soe2011-supplementary-framework-assessingresilience-soe-2011-reporting.pdf > [Accessed 22 March 2019].

Denyer, D., 2017. Organizational Resilience: A summary of academic evidence, business insights and new thinking. [online] BSI and Cranfield School of Management. Available at :< https://www.cranfield.ac.uk/som/case-studies/organizational-resilience-a-summary-of-academic-evidence-business-insights-and-new-thinking > [Accessed 6 March 2018].

Dervitsiotis, K. N., 2003. The pursuit of sustainable business excellence: guiding transformation for effective organizational change [online] Total Quality Management, Vol. 14, No. 3, 2003, 251–267. Available at: < https://doi.org/10.1080/1478336032000046599 > [Accessed 25 July 2019].

de Villiers, C., Venter, E.R. and Hsiao, P.K., 2017. Integrated reporting: background, measurement issues, approaches and an agenda for future research [online] Accounting & Finance 57 Issue 4 (2017) 937–959. Available at:< http://dx.doi.org/10.1111/acfi.12246 > [Accessed 2 April 2019].

Eskom, 2004. A Decade of Democracy. Published by Eskom Corporate Communications.

Eskom, 2010. Eskom Holdings Limited Integrated Report 2010 [online] Available at: < http://financialresults.co.za/2010/eskom_ar2010/index.htm > [Accessed 18 October 2019]

Eskom, 2011. Integrated Report, 31 March 2011. [online] Available at: < http://financialresults.co.za/2011/eskom_ar2011/downloads/eskom-ar2011.pdf > [Accessed 7 March 2019]

Eskom, 2012. Integrated Report, 31 March 2012. [online] Available at: < http://financialresults.co.za/2012/eskom_ar2012/integrated-report/downloads/full_downloads/01_eskom_integrated_report2012.pdf > [Accessed 7 March 2019]

Eskom, 2016. Integrated Report, 31 March 2016. [online] Available at: <https://www.eskom.co.za/IR2016/Documents/Eskom_integrated_report_2016.pdf> [Accessed 7 March 2019].

Eskom, 2017. Integrated Report, 31 March 2017. [online] Available at: https://www.eskom.co.za/IR2017/Documents/Eskom_integrated_report_2017.pdf [Accessed 7 March 2019].

Eskom, 2018. Integrated Report, 31 March 2018. [online] Available at: < http://www.eskom.co.za/IR2018/Documents/Eskom2018IntegratedReport.pdf> [Accessed 15 October 2018].

Etikan, I., Abubakar, S., Rukayya, M. and Alkassim, S., 2017. Comparison of Convenience Sampling and Purposive Sampling. [online] American Journal of Theoretical and Applied Statistics. Vol. 5, No. 1, 2016, pp. 1-4. Available at: < http://dx.doi: 10.11648/j.ajtas.20160501.11 > [Accessed 25 September 2019].

Folke, C. 2016. Resilience (Republished). [online] Ecology and Society 21(4):44. Available at: < https://doi.org/10.5751/ES-09088-210444 > [Accessed 22 June 2018].

Folke, C., Carpenter, S., Elmqvist, T., Gundersen, L., Holling, C.S., Walker, B., Bengtsson, J., Berkes, F., Colding, J., Danell, K. and Falkenmark, M., 2002. Resilience and Sustainable Development: Building Adaptive Capacity in a World of Transformations. [online] Science Background Paper commissioned by the

Environmental Advisory Council of the Swedish Government in preparation for WSSD. International Council for Science (ICSU) Series on Science for Sustainable Development, (3). Available at: < http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.511.9483&rep=rep1&type=pdf > [Accessed 21 March 2019].

Folke, C., Carpenter, S.R., Walker, B., Scheffer, M., Chapin, T. and Rockström, J., 2010. Resilience thinking: integrating resilience, adaptability and transformability. [online] *Ecology and Society* 15(4): 20. Available at: <http:// www.ecologyandsociety.org/vol15/iss4/art20/> [Accessed 21 March 2019]

Frias-Aceituno, J.V., Rodríguez-Ariza, L. and Garcia-Sánchez, I.M. 2014. Explanatory Factors of Integrated Sustainability and Financial Reporting. [online] Business Strategy and the Environment 23 (1): 56–72. Available at: <https://doi.org/10.1002/bse.1765> [Accessed 15 April].

Gover, L., and Duxbery, L., 2018. Inside the Onion: Understanding What Enhances and Inhibits Organizational Resilience. [online] Journal of Applied Behavioral Science. 2018;54(4):477-501. Available at:< https://doi.org/10.1177/0021886318797597 > [Accessed 5 April 2019].

Guba, E. G. and Lincoln, Y. S. 1994. Competing Paradigms in Qualitative Research. In N. K. Denzin & Y. S. Lincoln (Eds), Handbook of Qualitative Research (pp. 105-117). London: Sage. [Online] Available at: < http://www.uncg.edu/hdf/facultystaff/Tudge/Guba%20&%20Lincoln%201994.pdf > [Accessed 27 June 2018].

Hamel, G. and Valikangas, L., 2003. The Quest for Resilience. [online] Harvard Business Review, 81, pp. 52–63. Available at: < http://0-eds.b.ebscohost.com.wam.seals.ac.za/eds/pdfviewer/pdfviewer?vid=1&sid=1e7486d1-7559-4709-abc7-ee1e9014b5bd%40pdc-v-sessmgr04 > [Accessed 9 March 2018]

Herrfahrdt-Pähle, E. and Pahl-Wostl, C., 2012. Continuity and change in social-ecological systems: the role of institutional resilience. [online] Ecology and Society 17(2): 8. Available at: <http://dx.doi.org/10.5751/ES-04565-170208> [Accessed 26 August 2019].

Holling, C. S., 1973. Resilience and stability of ecological systems. [online] Annual Review of Ecology and Systematics 4:1-23. Available at: < https://www.annualreviews.org/doi/pdf/10.1146/annurev.es.04.110173.000245> [Accessed 26 April 2019].

Hollnagel, E.,2010. How Resilient Is Your Organisation? An Introduction to the Resilience Analysis Grid (RAG). [online] Sustainable Transformation: Building a Resilient Organization, May 2010, Toronto, Canada. Available at: < https://hal-mines-paristech.archives-ouvertes.fr/hal-00613986 > [Accessed 24 March 2019].

Hollnagel, E., 2011. Epilogue: RAG – The resilience analysis grid. In Hollnagel, E., Paries, J., Woods, D.D. & Weathall, J. Resilience engineering in practice: A guidebook. Ashgate, 2011. [online] Available at: <http://0-search.ebscohost.com.wam.seals.ac.za/login.aspx?direct=true&db=buh&AN=63634> [Accessed 27 June 2018].

Hoque, M., 2017. Why Company Should Adopt Integrated Reporting? [online] International Journal of Economics and Financial Issues, 2017, 7(1), 241-248. Available at: < https://dergipark.org.tr/en/download/article-file/364169 > [Accessed 22 March 2019].

Institute of Directors South Africa (IODSA), 2016. King IV Report on Corporate Governance for 2016. Institute of Directors South Africa. [online] Available at: < https://c.ymcdn.com/sites/iodsa.site-ym.com/resource/collection/684B68A7-B768-465C-8214-E3A007F15A5A/IoDSA_King_IV_Report_-_WebVersion.pdf > [Accessed on 21 May 2017]

Integrated Reporting Committee (IRC) of South Africa, 2011. Framework for Integrated Reporting and the Integrated Report. [online] Discussion Paper, 25 January 2011. Available at: <

http://www.chartsec.co.za/documents/latestNews/IRCOfSAIntergratedReportingGuideJan11.pdf > [Accessed 15 April 2019].

International Integrated Reporting Committee (IIRC), 2011. Towards Integrated Reporting. Communicating Value in the 21st Century [online] Available at: < http://integratedreporting.org/wp-content/uploads/2011/09/IR-Discussion-Paper-2011_spreads.pdf > [Accessed 15 April 2019].

International Integrated Reporting Council (IIRC), 2013. The International <IR> Framework. [online] Available at: < http://integratedreporting.org/wp-content/uploads/2015/03/13-12-08-THE-INTERNATIONAL-IR-FRAMEWORK-2-1.pdf> [Accessed 30 March 2017].

Johnson, J., Zanotti, L., Ma, Z., Yu, D., Johnson, D., Kirkham, A. and Carothers, C., 2017. Interplays of Sustainability, Resilience, Adaptation and Transformation [online] Available at: Available at: <https://www.academia.edu/37557319/Interplays_of_Sustainability_Resilience_Adaptation_and_Transformation> [Accessed 16 April 2019].

Kay, R. and Goldspink, C., 2012. CEO perspectives on organisational resilience. [online] Commonwealth of Australia, Research Paper 1. Available at:< https://www.researchgate.net/publication/274065989_CEO_Perspectives_on_Organisational_Resilience/link/55dc042108aeb38e8a8b98bd/download > [Accessed 19 September 2019].

Kerr, H., 2015. Organizational Resilience: Harnessing experience, embracing opportunity. [online] British Standards Institution (BSI), Whitepaper. Available at: < https://www.bsigroup.com/LocalFiles/En-VN/Organizational-Resilience/whitepaper-harnessing-experience-embracing-opportunity.pdf > [Accessed 5 June 2018].

Koronis, E. and Ponis, S., 2018. Better than before: the resilient organization in crisis mode [online] Journal of Business Strategy, Vol. 39 Issue: 1, pp.32-42. Available at: <https://doi.org/10.1108/JBS-10-2016-0124> [Accessed 07 March 2018].

Lebel, L., Anderies, J.M., Campbell, B., Folke, C., Hatfield-Dodds, S., Hughes,T.P. and Wilson, J., 2006. Governance and the capacity to manage resilience in regional social-ecological systems. [online] Ecology and Society 11(1):19. Available at: <http://dx.doi.org/10.5751/es-01606-110119> [Accessed 26 April 2019].

Lengnick-Hall, C.A., Beck, T. E. and Lengnick-Hall, M.L., 2011. Developing a capacity for organizational resilience through strategic human resource management. [online] Human Resource Management Review 21 (2011) 243–255 Available at: <https://doi.org/10.1016/j.hrmr.2010.07.001> [Accessed 9 March 2018].

Limnios, E.A.M., Mazzarol, T., Ghadouani, A. and Schilizzi, S.G.M, 2014. The Resilience Architecture Framework: Four organizational archetypes. [online] European Management Journal 2014 32, 104– 116. Available at: < http://dx.doi.org/10.1016/j.emj.2012.11.007> [Accessed 9 March 2018].

Linkov, I., Bridges, T., Creutzig, F., Decker, J., Fox-Lent, C., Kröger, W., Lambert, J.H., Levermann, A., Montreuil, B., Nathwani, J., Nyer, R., Renn, O., Scharte, B., Scheffler, A., Schreurs M. and Thiel-Clemen, T., 2014. Changing the resilience paradigm [online] Available at: < https://www.researchgate.net/publication/263808670_Changing_the_resilience_paradigm/link/02e7e53bed643ef3c8000000/download > [Accessed 18 September 2019].

Linnenluecke, M.K., 2017. Resilience in Business and Management Research: A Review of Influential Publications and a Research Agenda. [online] International Journal of Management Reviews, Vol. 19, 4–30 (2017).
Available at: https://onlinelibrary.wiley.com/doi/pdf/10.1111/ijmr.12076 [Accessed 16 June 2019]

Maguire, M. and Delahunt, B, 2017. Doing a Thematic Analysis: A Practical, Step-by-Step Guide for Learning and Teaching Scholars. [online] Dundalk Institute of Technology. Volume ,Number 3 (Autumn 2017) [online] Available at:http://ojs.aishe.org/index.php/aishe-j/article/viewFile/335/553 [Accessed 16 March 2019]

McManus, S., Seville, E., Vargo, J. and Brunsdon, D., 2008. Facilitated Process for Improving Organizational Resilience. [online] Natural Hazards Review ASCE May 2008.9:81-90. Available at: < https://ascelibrary.org/doi/10.1061/%28ASCE%291527-6988%282008%299%3A2%2881%29 > [Accessed 18 September 2019]

Morros, J., 2016. The integrated reporting: A presentation of the current state of art and aspects of integrated reporting that need further development. [online] Intangible Capital 2016 – 12(1): 336-356 Available at: <http://dx.doi.org/10.3926/ic.700> [Accessed 22 March 2019]

Nilakant, V., Walker, B., van Heugen, K., Baird, R. and De Vries, H., 2014. Research note: Conceptualising adaptive resilience using grounded theory. [online] New Zealand Journal of Employment Relations, 39(1), p.79. Available at: < https://ir.canterbury.ac.nz/bitstream/handle/10092/12202/Conceptualising%20Adaptive%20Resilience%20using%20Grounded%20Theory1.pdf?sequence=3 > [Accessed 19 September 2019]

Noble, H. and Smith, J., 2015. Issues of validity and reliability in qualitative research. Evidence Based Nursing, 18, (2): 34-35. Available at: < http://eprints.hud.ac.uk/id/eprint/23995/1/SmithIssues.pdf> [Accessed 18 May 2019]

Norris, F.H., Stevens, S.P., Pfefferbaum, B., Wyche, K.F. and Pfefferbaum, R.L., 2008. Community Resilience as a Metaphor, Theory, Set of Capacities, and Strategy for Disaster Readiness. [online] American Journal of Community Psychology, Volume 41, Issue 1-2, March 2008, 127–150.
Available at:< https://doi.org/10.1007/s10464-007-9156-6 > [Accessed 29 August 2019].

Nykvist, B. and von Heland, J., 2014. Social-ecological memory as a source of general and specified resilience. [online] Ecology and Society 19 (2): 47. Research. Available at: < http://dx.doi.org/10.5751/ES-06167-190247 > [Accessed 22 March 2019].

Papenfuß, U., Steinhauer, L. and Friedländer, B., 2017. Clearing the fog for an overall view on state-owned-enterprises: quality of aggregate holdings reporting by public administrations in 12 countries. [online] International Review of Administrative Sciences

0(0) 1–21 Available at < https://doi.org/10.1177/0020852316681445 > [Accessed 20 September 2019]

Pasteur, K., 2011. From Vulnerability to Resilience: A Framework for Analysis and Action to Build Community Resilience. [online] Practical Action Publishing Ltd Schumacher Centre for Technology and Development,Warwickshire. Available at:< http://repo.floodalliance.net/jspui/bitstream/44111/1443/1/From%20Vulnerability%20to%20Resilience%2C%20a%20framework%20for%20analysis%20and%20action%20to%20build%20community%20resilience.pdf> [14 June 2019Accessed].

Powley, E.H., 2009. Reclaiming resilience and safety: Resilience activation in the critical period of crisis. [online] Human Relations, Volume: 62, issue: 9, 2009, 1289-1326. Available at: < https://doi.org/10.1177/0018726709334881 > [Accessed 25 July 2019].

PWC, 2015. State-Owned Enterprises Catalysts for public value creation? [online] Available at :<https://www.pwc.com/gx/en/psrc/publications/assets/pwc-state-owned-enterprise-psrc.pdf> [Accessed 20 September 2019].

Rensburg, R. and Botha, E., 2013. Is Integrated Reporting the silver bullet of financial communication? A stakeholder perspective from South Africa. [online] Public Relations Review 40(2) January 2103. Available at:< https://doi.org/10.1016/j.pubrev.2013.11.016 > [Accessed 17 September 2019].

Ruiz-Martin, C., López-Paredes, A. and Wainer, G., 2018. What we know and do not know about organizational resilience. [online] International Journal of Production Management and Engineering, 6(1), 11-28. Available at: < https://doi.org/10.4995/ijpme.2018.7898 > [Accessed 14 June 2019].

Sawalha, I., 2015. Managing adversity: understanding some dimensions of organizational resilience. [online] Management Research Review, Vol. 38 Issue: 4, pp.346-366, Available at:< https://doi.org/10.1108/MRR-01-2014-0010 > [Accessed 7 March 2108].

Scholten, K. and Schilder, S., 2015. "The role of collaboration in supply chain resilience", Supply Chain Management: [online] An International Journal, Vol. 20 Issue: 4, pp.471-

484. Available at: <https://doi.org/10.1108/SCM-11-2014-0386> [Accessed 7 March 2018].

Seville, E., 2008. Resilience: Great concept … but what does it mean? Compete Briefing Bite – Paper Presented at the US Council on Competitiveness Workshop, Risk and Resilience. Wilmington, USA. November 2008. [online] Available at :< https://ir.canterbury.ac.nz/bitstream/handle/10092/2966/12618148_Compete%20Briefing%20Bite.pdf?sequence=1 > [Accessed 19 September 2019]

Seville, E., Brunsdon, D., Dantas, A, Le Masurier, J., Wilkinson, S. and Vargo, J, 2006. Building Organisational Resilience: A New Zealand Approach. [online] CAE Bulletin. Resilient Organisations Research Programme. Available at: < http://ir.canterbury.ac.nz/nz/bitstream/10092/649/1/12604297_Main.pdf,2006 > [Accessed 26 February 2018].

Shenton, A. K., 2004. Strategies for ensuring trustworthiness in qualitative research projects. [online] Education for information, 22(2), pp.63-75. Available at <

https://pdfs.semanticscholar.org/cbe6/70d35e449ceed731466c316cd273032b28ca.pdf > [Accessed 19 February 2020].

Simnett, R. and Huggins, A 2015. Integrated reporting and assurance: Where can research add value? [online] Sustainability Accounting, Management and Policy Journal, 6(1), pp. 29-53. Available at < https://eprints.qut.edu.au/85015/ > [Accessed 18 September 2019].

The Association of Certified Chartered Accountants, 2017. Insights into Integrated Reporting. Challenges and best practice responses. [online] Available at:< https://www.accaglobal.com/content/dam/ACCA_Global/Technical/integrate/pi-insights-into-ir-.pdf > [Accessed 25 March 2019].

The International Federation of Accountants (IFAC), 2017. IFAC Policy Position 8

January 2017 [online] Available at: < https://www.ifac.org/system/files/publications/files/PPP8-Enhancing-Organizational-Reporting-Jan-2017.pdf > [Accessed 20 September 2019].

The Little Oxford Dictionary, 1982. Fifth edition (with corrections). Oxford University Press, New York.

Van der Merwe, S.E., Biggs, R. and Preiser, R., 2018. A framework for conceptualizing and assessing the resilience of essential services. [online] Under review at Ecology & Society. Available at:< https://doi.org/10.5751/ES-09623-230212 > [Accessed 28 March 2018].

Van der Vegt, G., Essens, P., Wahlstrom, M. and George, G., 2015. Managing Risk and Resilience: From the Editors. [online] Academy of Management Journal. 58, (4), 971-980. Research Collection Lee Kong Chian School Of Business.
Available at: <https://ink.library.smu.edu.sg/lkcsb_research/4744> [Accessed 25 July 2019].

Vogus, T.J. and Sutcliffe, K.M., 2007. Organizational resilience: towards a theory and research agenda. [online] IEEE International Conference, Montreal, Quebec, Canada, 7-10 October 2007. Available at: < https://ieeexplore.ieee.org/document/4414160 > [Accessed 1 March 2019].

Vos, A., Strydom, H., Fouche, C. and Delport, C., 2017. Research at grass roots: For the social sciences and human service professions. 4th edition. Pretoria. Van Schaik Publishers.

Vos, M., van der Molen, I. and Mykkanen, M., 2017. Communication in Turbulent Times: Exploring Issue Arenas and Crisis Communication to Enhance Organisational Resilience. [online] Reports from the School of Business and Economics. Jyväskylä University. No: 40/2017. Available at: < https://www.researchgate.net/publication/319261056_Communication_in_Turbulent_Times_Exploring_Issue_Arenas_and_Crisis_Communication_to_Enhance_Organisational_Resilience > [Accessed 20 September 2019].

Walker, B., Holling, C., Carpenter, S. and Kinzig, A., 2004. Resilience, adaptability and transformability in social–ecological systems. [online] Ecology and Society 9(2): 5. Available at: < http://www.ecologyandsociety.org/vol9/iss2/art5 > [Accessed on: 5 April 2019]

Walker, B. and Salt, D., 2012. Resilience Practice: Building Capacity to Absorb Disturbance and Maintain Function. [online] Island Press, Washington, D.C. USA. Available at: <http://dx.doi.org/10.5822/978-1-61091-231-0> [Accessed 22 March 2019].

Weick, K.E. and Sutcliffe, K.M., 2015. Managing the unexpected. Third Edition. Holboken, New Jersey: John Wiley & Sons, Inc.

Winnard, J., Adcroft, A., Lee, J. and Skipp, D., 2014. Surviving or flourishing? [online] Integrating business resilience and sustainability, Journal of Strategy and Management, Vol. 7 Issue: 3, pp.303-315. Available at: <https://doi.org/10.1108/JSMA-11-2012-0059> [Accessed 7 March 2018].

Witmer, H. and Mellinger, M.S., 2016. Organizational resilience: Nonprofit organizations' response to change. [online] Work, 54(2), 2016. Available at: < https://muep.mau.se/bitstream/handle/2043/21600/6%20July2016PDF.pdf?sequence=2 > [Accessed 25 July 2019].

Wright, C., Kiparoglou, V., Williams, M. and Hilton, J., 2012. A Framework for Resilience Thinking. [online] New Challenges in Systems Engineering and Architecting Conference on Systems Engineering Research (CSER) St. Louis, MO. Available at: < https://doi:10.1016/j.procs.2012.01.012 > [Accessed 9 March 2018].

World Economic Forum, 2019. World Economic Forum, Davos 2019. [online] Available at: < https://www.weforum.org/focus/davos-2019 > [Accessed 24 August 2019].

7. APPENDICES

7.1. Appendix I

Theme	Author	Definition	Words
Transform / Tranformability / Transformation	Cork, 2011	"Transformability is the capacity of a system to become a different system, to create a new way of making a living." p.5	transformability
	Folke et al., 2010	"Transformability is the capacity to cross thresholds into new development trajectories." p.20	cross threshholds, new development trajectories
		"Transform the stability landscape itself in order to become a different kind of system, to create a fundamentally new system when ecological, economic, or social structures make the existing system untenable." p.22	different kind of system, create a fundamentally new system, existing system untenable
		"Transformation involves novelty and innovation." p.26	novelty, innovation
		"Deliberate transformation involves breaking down the resilience of the old and building the resilience of the new." p.26	breaking, building, new
		"Transformability is the capacity to cross thresholds into new development trajectories." p.20	cross thresholds, new development trajectories
	Folke, 2016	"Transform into new development pathways in the face of dynamic change." p.45	new, dynamic change
		"Transformability is about shifting development into new pathways and even creating novel ones." p.47	shifting development, new pathways, creaing new
		"Transformation is about shifting development into other emergent pathways and even creating new ones." p.45	creating new
	Johnson et al., 2017	"Shift into a new system altogether." p.11	shift, new system
		"Transforming to create new systems." p.18	create new systems
	The Little Oxford	"change considerably" p.637	change considerably
	Walker et al., 2004	"Transformability is the capacity to create a fundamentally new system when ecological, economic, or social structures make the existing system untenable." p.5	create, fundamentally new system, untenable
		"Transformability refers to fundamentally altering the nature of a system." p.6	fundamentally altering
		"Transformability—the capacity to create untried beginnings from which to evolve a new way of living when existing ecological, economic, or social structures become untenable." p.9	create untried beginnings, new untenable

Adapt / Adaptability / Adaptation	Cork 2011	"Adaptability is about sticking with the system you have." p.5	adaptability, sticking with the system
	Folke et al., 2006	Adaptability is the capacity of the actors in a system to manage resilience.	adaptability
	Folke et al 2010	"Adaptability is the capacity of a SES to adjust its responses to changing external drivers and internal processes." p.25	adaptability, adjust
		"Allow for development within the current stability domain, along the current trajectory." p.25	development within the current
	Folke 2016	"Adaptation refers to human actions that sustain development on current pathways." p.45	adaptation, sustain on current pathways
	Johnson et al., 2017	"Adjustments allow a system to retain core system functions and characteristics (adaptation)." p.11	adjustments, retain core sytem, adaptation
	The Little Oxford	"adjust ; fit ; modify ; alter" p.6	adjust, modify, alter

Persist / Persistence	Holling 1973	"Is a measure of the ability of these systems to absorb changes of state variables, driving variables, and parameters and still persist." p.14	absorb changes
	Limnios et al. , 2014	"Persistence as either capacity for adaptive." p.105 learning or resistance to change.	adaptive learning, resistance to change
	The Little Oxford	"continue to exist : do something in spite of obstacles" p.421	continue to exist
	Gunderson et al. cited in Herrfahrdt-Pähle, and Pahl-Wostl, 2012	"Persistence refers to an institutional system that changes only incrementally after a disturbance (Gunderson et al. 2006)." p.9	changes only incrementally
	Pimm, 1991, cited in Batabyal, 2000	"Persistence refers to 'how long a variable lasts before it is changed to a new value ... ' ." p.5	how long a variable lasts

7.2. Appendix II

Features of Components of Resilience			
Author	Transform	Adapt	Persist
Herrfahrdt-Pähle, and Pahl-Wostl, 2012	Change > continuity	Change~continuity	Continuity>change
Herrfahrdt-Pähle, and Pahl-Wostl, 2012	Triple loop learning	Double loop learning	Single loop learning
van der Merwe, et.al, 2017	Strategic	Tactical	Operational
Bahadur, et al., 2016	Long term	Medium term	Short term
Bahadur, et al., 2016; Folke, 2010; Folke 2010	innovate	learn/innovate	
The Little Oxford, 1982	change consierably	adjust	continue to exist